STELLENBOSCH
UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

Graduation Ceremonies

13 December

09:00 • 13:00 • 17:00

Gradeplegtighede

13 Desember

09:00 • 13:00 • 17:00

2023

Our vision 2040

Stellenbosch University will be Africa's leading research-intensive university, globally recognised as excellent, inclusive and innovative, where we advance knowledge in service of society.

Our mission

Stellenbosch University is a research-intensive university, where we attract outstanding students, employ talented staff and provide a world-class environment; a place connected to the world, while enriching and transforming local, continental and global communities.

Umbono Wethu 2040

IYunivesithi yaseStellenbosch iya kuba yiyunivesithi egxininisa kuphando nekhokelayo eAfrika, neyamkelwa kwihlabathi lonke njengegqwesileyo, equkayo neyenza inguqulelo ezintsha, nalapho ulwazi olusiqhubela phambili lunika iinkonzo kuluntu.

Ubizo lwethu

IYunivesithi yaseStellenbosch yiyunivesithi egxininise kuphando nalapho sitsala abafundi abagqwesileyo, siqesha abasebenzi abanesiphiwo kwaye sibonelela ngemeko ekwinqanaba lehlabathi; indawo eqhagamshelana nehlabathi, ngeli lixa ityebisa ngophuhliso kwaye iguqula uluntu lwendawo, elizwekazi nolwehlabathi.

Ons visie 2040

Die Universiteit Stellenbosch sal Afrika se voorste navorsingsintensiewe universiteit wees wat wêreldwyd as uitnemend, inklusief en innoverend erken word en waar ons kennis tot diens van die samelewing bevorder.

Ons missie

Die Universiteit Stellenbosch is 'n navorsings-intensiewe universiteit wat uitmuntende studente lok, talentvolle personeel aanstel en 'n wêreldklasomgewing bied; 'n plek wat met die wêreld verbind is en gemeenskappe plaaslik, op die vasteland en in die res van die wêreld verryk en transformeer.

Retired Justice | Oudregter Edwin Cameron

Chancellor | Kanselier

Dear member of the Stellenbosch University community

It is an honour and a privilege for me to bring you this message.

The past year has had its difficulties. But amidst many challenges, our students graduating this week have succeeded – and this says great things about their future and ours!

We are enormously proud of the cascade of hard-won degrees, diplomas and certificates that we are conferring at these ceremonies.

Students and staff – each one of you have played a critical part in ensuring that Stellenbosch University and its people continue to flourish.

And without the support that loving friends and family have willingly given, many students would not be here today – so, to them, too, a heartfelt thank you.

A special word of appreciation to our generous donors and sponsors, too, for helping to keep our graduands going.

To each and every graduand:

May the elation you feel today develop in time into something even more valuable – a rich sense of duty and responsibility. Your new status means you can use the knowledge, skills and networks from your studies to make our country, our continent and the rest of the world a better place.

More than ever, we need you to make enriching and empowering choices to help shape society and make a definable difference in your community.

I wish you joy, success and fulfilment in the next phase of your life's journey. And remember – once a Matie, always a Matie!

Retired Justice Edwin Cameron
Chancellor

Geagte lid van die Universiteit Stellenbosch-gemeenskap

Dit is vir my 'n eer en 'n voorreg om hierdie boodskap met jou te deel.

Ondanks talle uitdagings die afgelope jaar het ons studente wat vandeesweek gradueer, sukses behaal – en dit spreek boekdele oor hul en ons toekoms!

Ons is ongelooflik trots daarop om die menigte grade, diplomas en sertifikate waarvoor so lank so hard gewerk is, by hierdie plegtighede te kan toeken.

Studente en personeellede – elkeen van julle het 'n uiters belangrike rol gespeel om te verseker dat die Universiteit Stellenbosch bly floreer.

En sonder die ondersteuning wat geliefde familie en vriende so onvoorwaardelik bied, sou talle studente nie vandag hier gewees het nie – so, ons sê uit ons hart uit ook dankie aan julle.

Ook 'n besondere woord van waardering ook aan ons ruimhartige donateurs en borge wat ons studente aan die gang gehou het.

Aan elke graduandus:

Mag die vreugde wat jy vandag voel, met die verloop van tyd in iets nog waardevoller ontwikkel – 'n ryke sin van plig en verantwoordelikheid. Jou nuwe status beteken jy kan nou die kennis, vaardighede en netwerke van jou studentejare by die Universiteit Stellenbosch gebruik om ons land, ons vasteland en die res van die wêreld 'n beter plek te maak.

Meer as ooit te vore het ons nodig dat jy verrykende en bemagtigende keuses maak om die samelewing te help vorm en 'n wesenlike verskil in jou gemeenskap te maak.

Ek wens jou vreugde, sukses en vervulling toe in die volgende fase van jou lewensreis. En onthou – eenmaal 'n Matie, altyd 'n Matie!

Oudregter Edwin Cameron
Kanselier

Prof Wim de Villiers

Rector and Vice-Chancellor | Rektor en Visekanselier

Dear Matie graduand

Firstly, congratulations! The main goal of enrolling at university is to graduate, and today you are achieving that. This must be celebrated – so, well done to you and everyone who has championed you along the way.

Secondly, your qualification from Stellenbosch University (SU) will open doors for you, no matter where you are in the world. We have a good reputation locally and globally, aided by the fact that our graduates make a strong impact wherever they go.

In 2020 and 2021, when the coronavirus pandemic posed a major threat, our objective was simple: to complete the academic year successfully. Thanks to the agility and can-do spirit of our people, we managed to surpass this objective and actually thrive.

The past two years, we were able to go even further, pursuing renewal in learning and teaching, new networks and partnerships in the rest of Africa and elsewhere, as well as digitalisation. Our staff and students showed that SU nurtures and advances innovation.

We are also making good progress on our transformation journey to ensure that SU is a place where everyone feels welcome and at home.

I know the lessons that you have learnt here will stand you in good stead, and I hope you will continue to live by SU's values – equity, compassion, accountability, respect and excellence.

We would like you to stay in touch and be part of your alma mater's future through our global alumni network. Please visit www.matiesconnect.com, where you will be able to maintain ties with your University friends, view job offers and find mentors and networking opportunities – all in one place. SU will always be your academic home, and participating in alumni activities will enhance your professional development going forward.

Good luck with your next steps!

Until we meet again,

Prof Wim de Villiers
Rector and Vice-Chancellor

Beste Matie-graduandus

Eerstens, baie geluk! Jy het universiteit toe gekom om 'n gesogte kwalifikasie te verwerf, en vandag bereik jy hierdie doelwit. Dit moet gevier word – so, welgedaan aan jou en elkeen wat jou op hierdie reis ondersteun het.

Tweedens bevestig ek dat jou kwalifikasie van die Universiteit Stellenbosch (US) oral ter wêreld vir jou deure gaan oop maak. Ons het 'n goeie reputasie – plaaslik en internasionaal – wat bevorder word deur die feit dat ons gegradueerdes 'n sterk impak maak waar hulle ook al gaan.

In 2020 en 2021, toe die koronaviruspandemie 'n groot bedreiging ingehou het, was ons doelwit gewoon om die akademiese jaar suksesvol te voltooi. Ek is bly om te kan sê ons het daarin geslaag, danksy ons mense se veerkragtigheid en deursettingsvermoë.

Die afgelope twee jaar kon ons verder gaan – met vernuwing in leer en onderrig, nuwe netwerke vennootskappe in die res van Afrika en elders, en digitalisering. Ons personeel en studente het bewys dat die US innovasie kweek en bevorder.

Ons maak ook goeie vordering op ons transformasiereis om te verseker dat die US 'n plek is waar almal welkom en tuis voel.

Ek weet die lesse wat jy hier geleer het, sal jou handig te pas kom, en ek hoop jy sal voortgaan om die US se waardes – billikheid, deernis, verantwoordbaarheid, respek en uitnemendheid – uit te leef.

Ons wil graag hê jy moet in aanraking bly en deel word van die US se toekoms deur middel van ons globale alumni-netwerk. Besoek gerus www.matiesconnect.com, waar jy jou bande met jou Universiteitsvriende kan behou, werksgeleenthede kan sien en mentors en netwerkgeleenthede kan vind. Die US sal altyd jou akademiese tuiste bly, en deelname aan alumni-aktiwiteite hou voordele vir jou professionele ontwikkeling in.

Alle voorspoed vir die toekoms!

Tot weersiens,

Prof Wim de Villiers
Rektor en Visekanselier

Chancellor | Kanselier

Retired Justice E Cameron, BAHons, LLD hc (Stell), LLB, BCL, MA, DCL hc (Oxford), LLD hc (King's College, London), LLD hc (Witw), LLD hc (St Andrews), LLD hc (Sussex)

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Dr NF Newton-King, BA LLB, LLM, LLD (hc) (Stell)

Rector and Vice-Chancellor | Rektor en Visekanselier

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Viserektor (Sosiale Impak, Transformasie en Personeel)

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Viserektor (Navorsing, Innovasie en Nagraadse Studies)

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Deans | Dekane
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Science | Natuurwetenskappe

Prof L Warnich, MSc, PhD

AgriSciences | AgriWetenskappe

Prof D Brink, BScHons, MScAgric, PhD

Education | Opvoedkunde

Prof MR Madiba, DLitt et Phil

Law | Regsgeleerdheid

Prof N Smit, BLC, LLB, LLD

Economic and Management Sciences | Ekonomiese en Bestuurswetenskappe

Prof ID Woolard, BSc, BAHons, PhD

Engineering | Ingenieurswese

Prof JL van Niekerk, MEng, PhD, EMBA

Medicine and Health Sciences | Geneeskunde en Gesondheidswetenskappe

Prof EM Muller, MBChB, MRCS (Ed), FCS (SA), MMed, FACS, PhD

Military Science | Krygskunde

Prof MS Tshehla, MSc, PhD

Theology | Teologie

Prof RW Nel, BA, BTh, MTh, DTh

Always a Matie

Congratulations and welcome to the Stellenbosch University alumni network! Your graduation is a momentous occasion and marks the beginning of your continued relationship with your alma mater. The Alumni Office is your lifelong connection to the University. Be sure to join fellow graduates after your faculty graduation ceremony for an exciting networking champagne celebration at the Alumni Clubhouse located at Die Stal, where we will toast your future success. Walk across from Coetzenburg to Die Stal with family and friends to celebrate your graduation!

There are many ways to stay connected. Please update your latest contact details via alumni@sun.ac.za in order for us to continue to keep in touch with you.

Homecoming and Family Weekend

The University's Homecoming and Family Weekend takes place from Thursday 12 September to Saturday 14 September 2024 on the Stellenbosch campus. Information is available on www.matiesalumni.com.

Join Maties Connect

Our www.matiesconnect.com platform will help you increase your professional network, find a job opportunity, advertise your business, search for a mentor, reach out to alumni, and keep up to date on what's happening at your alma mater.

Be part of an Alumni Chapter

The University's Development and Alumni Relations team establish alumni chapters both locally and internationally to connect alumni in specific regions with one another through regular networking and social events - both online and in person. For more information on how to join or to volunteer and participate in a chapter, send an e-mail to alumnihubs@sun.ac.za.

I-Matie ngalo Lonk' ixesha

Sivuyisana nawe kwaye wamkelekile kusapho olungabo babesakufunda kwiYunivesithi yaseStellenbosch! Ukuthweswa kwakho isidanga lixesha apha elakha labaluleka, kwaye likwalixesha eliphawula ukuqalisa kwakho ubudlelwane obuqhubekayo kunye nale yunivesithi owawusakufunda kuyo. IOfisi yabo Babesakuba Ngabafundi Apha yiyo ekunxulumanisa neYunivesithi ubomi bakho bonke. Emva komsitho wothwesozidanga wefakhalthi yakho, qinisekisa ukuba uhlangana nabanye oogxa bakho abaphumeleleyo kumbhiyozo weshampeyini omyoli wokwakha ubuhlobo phaya kwiAlumni Clubhouse eseDie Stal, apho siya kukuthi jize khona ngeminqweno emihle yempumelelo kwixesha elizayo. Wela ukusuka eCoetzenburg ukuya eDie Stal uthe chu ngcembe nezalamane nabahlobo ukuya kubhiyozela ukuthweswa kwakho isidanga!

Zininzi iindlela zokuhlala uqhagamshelekile. Sicela uthumele inkcukhaca zakho ku alumni@sun.ac.za ukuze siqhagamshelane nawe.

IMpelaveki yoBuyelekhaya ubekunye noSapho

IMpelaveki yoBuyelekhaya ubekunye noSapho eyenzelwe abo babesakufunda apha yenzeka ukusuka ngoLwesine umhla we-12 kwinyanga yoMsintsi ukuya kutsho ngoMgqibelo umhla we-14 kweyoMsintsi 2024 kwikhampasi yaseStellenbosch. Iingcombolo ezithe vetshe zifumaneka ku- www.matiesalumni.com.

Joyina i-Maties Connect

Iqonga lethu le- www.matiesconnect.com liza kukunceda ekwandiseni inani leengcali onxibelelana nazo, ukufumana amathuba omsebenzi, ukwazisa ishishini lakho, ukufuna umcebisi onamava, ekufikeleleni kwabanye ababefunda apha nasekubeni uhlale usazi ngokwenzekayo ngale yunivesithi owawusakufunda kuyo.

Yiba yinxalenye yeQela labo baBesakuba ngaBafundi balapha

Iqela loPhuhliso nezoNxibelelwano lwabo baBesakuba ngaBafundi balapha lisungula amaqela abo babesakuba ngabafundi apha netshapta zawo naza kuzinza kweli lizwe nakwamanye amazwe ukuze kunxibelelwane ngabo babesakuba ngabafundi apha abakwiingingqi ezithile oko kusenziwa ngokunxibelelana rhoqo nangendibano zasekuhlaleni nge-intanethi nangobuso ngobuso. Ukuba ufuna iinkcukacha ezithe vetshe malunga nendlela yokujoyina okanye yokuvolontiya nokuthatha inxaxheba kwiqela okanye itshapta ehlabathini, thumela i-imeyili ku alumnihubs@sun.ac.za.

Altyd 'n Matie

Geluk en welkom in die Universiteit Stellenbosch se alumni-familie! Jou gradeplegtigheid is 'n belangrike mylpaal, en ook die begin van jou voortgesette verbintenis met jou alma mater. Die Alumni-kantoor is jou lewenslange skakel met die Universiteit. Sluit gerus ná jou fakulteit se gradeplegtigheid by jou mede-graduandi aan vir 'n opwindende netwerkgeleentheid by die Alumni-klubhuis in Die Stal, waar ons 'n glasie sjampanje op julle toekomstige sukses sal klink. Stap sommer saam met familie en vriende van Coetzenburg af oor na Die Stal toe om jou graduering te vier!

Daar is vele maniere om in kontak te bly. Kontak ons by alumni@sun.ac.za om jou jongste kontakbesonderhede by te werk.

Tuiskoms-en-Familienaweek

Die Universiteit se Tuiskoms-en-Familienaweek vir alumni vind vanaf Donderdag 12 September tot Saterdag 14 September 2024 op die Stellenboschkampus plaas. Inligting is by www.matiesalumni.com beskikbaar.

Sluit aan by Maties Connect

Ons www.matiesconnect.com -platform sal jou help om jou professionele netwerk uit te brei, 'n werkgeleentheid te vind, jou besigheid te adverteer, vir 'n mentor te soek, alumni te kontak, en op die hoogte van gebeure by jou alma mater te bly.

Wees deel van 'n Alumni-tak

Die Universiteit se Ontwikkeling en Alumnibetrekkinge-span vestig plaaslike en internasionale alumni-takke om alumni in spesifieke streke met mekaar in verbinding te bring deur gereelde netwerk- en sosiale geleenthede aan te bied – aanlyn en in persoon. Vir meer inligting oor hoe om aan te sluit, as vrywilliger op te tree en wêreldwyd aan 'n tak deel te neem, stuur 'n e-pos aan alumnihubs@sun.ac.za.

Graduation Ceremonies | Gradeplegtighede

1. 13 December | Desember 2023 (09:00)

Faculty of Engineering | Fakulteit Ingenieurswese **7**

Doctoral Qualifications | Doktorale Kwalifikasies **9**

Other Qualifications | Ander Kwalifikasies **14**

2. 13 December | 13 Desember 2023 (13:00)

Faculty of Science (Group 1) | Fakulteit Natuurwetenskappe (Groep 1) **19**

BSc (Chemistry); BSc (Human Life Sciences); BSc (Molecular Biology and Biotechnology); BSc (Sport Science); BSc (Focal Area: Applied Medicinal Chemistry); BSc (Focal Area: Bioinformatics and Computational Biology); BSc Hons (Biochemistry); BSc Hons (Bioinformatics and Computational Biology); BSc Hons (Chemistry); BSc Hons (Genetics); BSc Hons (Microbiology); BSc Hons (Physiological Sciences); BSc Hons (Polymer Science); MSc (Biochemistry); MSc (Bioinformatics and Computational Biology); MSc (Chemistry); MSc (Genetics); MSc (Microbiology); MSc (Physiological Sciences); MSc (Polymer Science); PhD (Biochemistry); PhD (Bioinformatics and Computational Biology); PhD (Chemistry); PhD (Genetics); PhD (Microbiology); PhD (Physiological Sciences); PhD (Polymer Science)

Doctoral Qualifications | Doktorale Kwalifikasies **21**

Other Qualifications | Ander Kwalifikasies **24**

Chancellor's Awards | Kanselierstoekennings **27**

Jan du Toit

Loumarie Kistner

Nicolette van den Eijkel

3. 13 December | 13 Desember 2023 (17:00)

Faculty of Science (Group 2) | Fakulteit Natuurwetenskappe (Groep 2) **29**

BSc (Biodiversity and Ecology); BSc (Computer Science); BSc (Earth Science); BSc (GeoInformatics); BSc (Mathematical Sciences); BSc (Physics); BSc (Focal Area: Biomedical Mathematical Sciences); BSc (Focal Area: Biomathematics); BDatSci; BSc Hons (Applied Mathematics); BSc Hons (Biodiversity and Ecology); BSc Hons (Computer Science); BSc Hons (Earth Sciences); BSc Hons (GeoInformatics); BSc Hons (Geography and Environmental Studies B); BSc Hons (Mathematics); BSc Hons (Physics); BSc Hons (Plant Biotechnology); MSc (Applied Mathematics); MSc (Botany); MSc (Computer Science); MSc (Earth Sciences); MSc (Geography & Environmental Studies B); MSc (GeoInformatics); MSc (Machine Learning and Artificial Intelligence); MSc (Mathematical Sciences); MSc (Mathematics); MSc (Operations Research); MSc (Physics); MSc (Plant Biotechnology); MSc (Physical and Mathematical Analysis); MSc (Zoology); PhD (Applied Mathematics); PhD (Botany); PhD (Computer Science); PhD (Earth Sciences); PhD (Geography & Environmental Studies B); PhD (GeoInformatics); PhD (Mathematics); PhD (Physics); PhD (Plant Biotechnology); PhD (Physical and Mathematical Analysis); PhD (Zoology)

Honorary Doctorate | Eredoktorsgraad **31**

Robert Martin Adam

Doctoral Qualifications | Doktorale Kwalifikasies **32**

Other Qualifications | Ander Kwalifikasies **34**

Chancellor's Award | Kanselierstoekenning **38**

Sonia Schoeman

4. South African National Anthem | Suid Afrikaanse Volkslied (View last page) **39**

forward together
sonke siya phambili
saam vorentoe

Faculty of Engineering

13 December 2023 | 09:00

Fakulteit Ingenieurswese

13 Desember 2023 | 09:00

Programme

Please stand	1. Entrance of academic procession into the hall.
Please stand	2. Playing of the National Anthem.
Please sit	3. Congregation formally constituted by the Vice-Chancellor.
	4. Welcome by the Vice-Chancellor.
	5. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Vice-Chancellor.
	6. Closing by the Vice-Chancellor.
Please stand	7. The academic procession leaves the stage.

Program

Staan asseblief	1. Akademiese prosessie kom die saal binne.
Staan asseblief	2. Speel van die Nasionale Lied.
Sit asseblief	3. Formele konstituering deur die Visekanselier.
	4. Verwelkoming deur die Visekanselier.
	5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Visekanselier.
	6. Sluiting deur die Visekanselier.
Staan asseblief	7. Akademiese prosessie verlaat die verhoog.

Faculty of Engineering
Fakulteit Ingenieurswese

DOCTORAL QUALIFICATIONS | DOKTORALE KWALIFIKASIES

DOCTOR OF ENGINEERING
DOKTOR IN DIE INGENIEURSWESE

NIEUWOUDT, Izak (Chemical Engineering)

Contributions to theoretical developments and practical exploitation of mass transfer principles in separation technologies

Through 36 years of high-quality research, development, and engineering – both as academic and industrialist – Prof Izak Nieuwoudt has established himself as a world expert in separation technologies, particularly distillation, extraction and absorption. His significant contributions cover improvements in solvent-driven separation processes, the design of separation tower internals that offer higher efficiencies and higher hydraulic throughput, as well as presenting specialist education and short courses through the Koch-Glitsch Mass Transfer School and the FRI Distillation Academy. Most notably, his contributions have been embedded in 410 patents in 46 patent families, 48 publications and have generated more than $2 billion of value to benefiting companies.

Supervisor: Prof AJ Burger

DOCTOR OF PHILOSOPHY
DOKTOR IN DIE WYSBEGEERTE

BIGGS, David Robert (Mechatronic Engineering)

Improving counting performance of densely flocked sheep in aerial imagery

This study advances the application of machine learning and computer vision for sheep counting in drone imagery. It addresses challenges posed by high object densities and low object-to-image-pixel ratios. A unique dataset comprising aerial imagery and videos of sheep grazing in diverse conditions is presented, alongside two novel methods that mitigate these challenges. The first, local density threshold shifting, focuses on scenarios with high object densities, while the second, sub-window inference, improves object-to-image-pixel ratios. These methods are designed to significantly enhance counting accuracy by effectively addressing the challenges identified, thereby paving the way for more accurate and efficient livestock monitoring.

Supervisor: Prof K Schreve
Co-supervisor: Dr RP Theart

CERFONTEYN, William Jacques (Electronic Engineering)

Impact and cause of sensitivity ripple in radio astronomy reflector antennas

This study describes and characterises the frequency ripples observed in sensitive ground-based reflector antenna systems used in radiometry and radio astronomy. These chromatic aberration ripples are found to be a strong function of the antenna pointing angle, thus altering the system's systematic effects during long observations of celestial sources. If the systematic effects are not properly characterised, the sensitivity of the instrument might be drastically reduced. The study provides a clear physical description of the causes of these observed variations in systematics, allowing astronomers to calibrate their data accordingly and improve the sensitivity of their instruments.

Supervisor: Prof DIL de Villiers

CHIODZA, Godknows Kudzai (Chemical Engineering)

The impact of processing conditions on enzymatic protein hydrolysis performance from sardine (*Sardina pilchardus*) by-products using Alcalase®2.4 L, and the influence on final spray dried hydrolysate powder properties

Despite more than 60 years of research and development in enzymatic hydrolysis of fish and their processing by-products, some important information relevant to the chemical engineering discipline remains lacking. This study focuses on the influence of solids concentration, mixing speed and enzyme dosage on mixing regime, material recovery and the properties of the spray-dried protein hydrolysates. These factors have variable effects on both upstream and downstream processing, implying that a holistic approach to process design and evaluation is required to determine the optimum processing conditions for the entire process (raw materials to final product).

Supervisor: Prof NJ Goosen

DU PLESSIS, Carl Jan (Industrial Engineering)

The development of a platform using digitalisation and networked modules for forecasting, planning and management to facilitate long-term success of SMEs in South Africa

This study underscores the need for a holistic approach to improve the survival rate of South African small and medium enterprises (SMEs) amidst the multifaceted challenges they face. It proposes a configurable, adaptable and accessible platform that utilises digitalisation and networked modules to enable forecasting, planning and management, thereby facilitating the long-term success and growth of these SMEs. The platform integrates diverse stakeholder perspectives and employs machine learning to automate the derivation of appropriate key performance indicators. It is validated across four real-world use cases that span the services, retail and agriculture sectors.

Supervisor: Prof CSL Schutte
Co-supervisor: Prof VP Hummel

DU RAND, Francois (Industrial Engineering)

Development of a quality management framework for powder-based additive manufacturing systems

When one manufactures parts using powder-bed additive manufacturing technologies, powder bed surface defects are unavoidable. Therefore, it is necessary to detect and classify these defects immediately as they occur. This study develops an optical system to identify powder bed surface defects and classify them according to their severity, position, or custom priority values. This quality management framework can be part of a closed-loop feedback system that provides immediate feedback to the machine control system. The study shows that the quality of parts can be ensured without the need for extensive post-build testing.

Supervisor: Prof AF van der Merwe
Co-supervisor: Prof PJM van Tonder

FISCHER, Joshua David (Mechatronic Engineering)

The influence of eye model complexity and parameter variations on the predictive power of simulated eye-tracking data

Simulated eye-tracking data facilitate the rapid, repeated and independent evaluation of eye-tracking methods without requiring resource-intensive user studies. This study investigates whether increasing the eye model complexity and parameter variations used to generate simulated data can improve real-world eye-tracking outcomes. The findings demonstrate that using an eye model that includes an aspheric anterior corneal surface and realistic variations in the asphericity of the anterior corneal surface in a simulated eye-tracking environment improves the predictive power of the simulated data, which, in turn, will likely lead to the development of eye-tracking methods with better outcomes.

Supervisor: Prof DJ van den Heever
Co-supervisor: Dr J van der Merwe

GIBBONS, Duncan William (Industrial Engineering)

Qualification and certification of laser powder bed fusion for aerospace applications: A model-based production systems engineering approach

The qualification and certification of additive manufacturing pose challenges relating to production controls, information traceability, and the lack of industry guidance. This study develops a laser powder bed fusion production system model in order to define how organisations can architect quality production operations to facilitate qualification and certification for aerospace applications. Model-based systems engineering techniques are applied to develop and test the system. The production system is proven to consistently produce material that conforms with industry requirements. The model aids qualification activities by defining the information, materials and resources required across the production and product lifecycles.

Supervisor: Prof AF van der Merwe

GROBBELAAR, Suné (Chemical Engineering)

Development of a dynamic model for direct copper electrowinning operations

Innovation is essential for sustainability in the copper production industry, particularly for operations employing resource-intensive copper electrowinning. This study develops a semi-empirical dynamic model for copper electrowinning. The model incorporates a resistance network, mass conservation equations, and reaction-rate and mass-transfer kinetics. It also includes new physiochemical property correlations, as well as an online parameter-fitting approach to adjust the model parameters based on evolving input data. The model is validated for a specific tankhouse, yet its versatility and accuracy render it valuable for use in operator training, process monitoring, and the assessment of advanced process control strategies.

Supervisor: Dr M Tadie
Co-supervisor: Prof C Dorfling

GWANZURA, Zvikomborero Takunda (Electronic Engineering)

Engineering carbon nanotubes as therapeutic nanocarriers of *Tulbaghia violacea*, *Annona muricata*, *Dicoma capensis* and *Dodonaea viscosa* plant-based extracts, targeting breast and colorectal cancer

This study sees the development of a carbon nanotube nanocarrier bioconjugated with plant-based biocompounds. The bioconjugates are designed to target breast and colorectal cancer cells. The nanotubes are functionalised with polyethylene glycol and folic acid to improve target specificity. Four different plants are selected, and the extracted biocompounds are used to form carbon nanotube bioconjugates. The bioconjugates show a higher cell viability in normal cells and a lower cell viability in cancer cells compared to plant extracts alone, proving that conjugation with carbon nanotubes improves efficacy. This research paves the way for non-toxic and effective plant-based anticancer drugs.

Supervisor: Prof WJ Perold
Co-supervisor: Prof A-M Engelbrecht

HASSAN, Elzubeir Badawi Elzubeir (Mechanical Engineering)

Flow and heat transfer in packed beds of rock

This study investigates the anisotropic pressure drop through a packed bed of crushed rock particles for thermal energy storage at concentrating solar power plants. A porous media technique is utilised to derive a correlation that can predict the pressure drop across a rock bed. A numerical model is developed using the discrete element method-computational fluid dynamics (DEM-CFD) process, and the findings are validated with data from the developed experimental test. An examination of the flow behaviour yields a correlation for pressure drop that is sensitive to flow direction and that can be used for the design and evaluation of thermal energy storage systems.

Supervisor: Prof JE Hoffmann

HERMANN, Julian (Industrial Engineering)

Development of an indoor positioning system to create a digital shadow of production plant layouts

The lifecycles of plant layouts in modern industries have shortened considerably due to the influence of dynamic factors causing turbulences. As the plant layout information is considered as master data, it is important that the data remain accurate and up to date. In this study, a novel indoor positioning system is developed that enables the creation of a digital shadow of plant layouts by automatically measuring the poses of each facility and providing the layout in different digital formats. The evaluation results of the prototypically implemented system show significant benefits in terms of accuracy and effort reduction for plant layout recording.

Supervisor: Mr KH von Leipzig
Co-supervisors: Profs VP Hummel, AH Basson

IBRAHIM, Kamoru Ademola (Civil Engineering)

Rheo-mechanical, hardened mechanical characterisation and tensile creep of limestone calcined clay cement fibre-reinforced printed concrete (LC3-FRPC)

Replacing up to 50% of cement in concrete with limestone–calcined clay significantly reduces its environmental impact. This study successfully makes limestone calcined clay cement (LC3) ternary concrete 3D-printable and free of plastic shrinkage cracking by incorporating microfibres. Appropriate rheo-mechanical pumping, extrusion and buildability performance is demonstrated for 3D concrete printing application, and appropriate strength and stiffness is achieved to justify its structural use. Without affecting rheology, a small quantity of added effective microorganisms densify the novel printable concrete, and specifically strengthen the interfacial bond, which is a known weakness in 3D-printed concrete. High resistance to tensile creep fracture is demonstrated.

Supervisor: Prof AJ Babafemi
Co-supervisor: Prof GPAG van Zijl

JACOBS, Christiaan (Electronic Engineering)

Multilingual acoustic word embedding for zero-resource languages

This study addresses the challenge of developing speech applications for zero-resource languages that lack labelled data. It specifically uses acoustic word embedding (AWE) models for zero-resource languages by employing multilingual transfer, where labelled data from several well-resourced languages are used for pretraining. A new neural network is proposed that outperforms existing AWE models for zero-resource languages. The impact of the choice of well-resourced languages is explored. AWEs are applied to a keyword-spotting system for hate speech detection in Swahili radio broadcasts, demonstrating robustness in real-world scenarios. Additionally, novel semantic AWE models improve semantic query-by-example searches.

Supervisor: Prof H Kamper

JAJI, Mustapha Bamidele (Civil Engineering)

Rheo-mechanics, durability and microstructural characterisation of slag-modified metakaolin-based geopolymer concrete for extrusion-based 3D printing applications

Abundantly available clays offer a sustainable solution as replacement for cement in concrete. Widespread adoption of metakaolin geopolymer concrete is limited by its long setting time and durability concerns. This study blends metakaolin with blast-furnace slag waste from local metal industries and improves mechanical performance by increasing the inert filler content. The slag and filler inclusions achieve an appropriate balance between setting time and sufficient open time for constructability. Analytical investigation proves that the slag inclusion reduces macropores, which enhances mechanical performance and durability. Durability index tests confirm that metakaolin-slag-based 3D-printed geopolymer concrete is a durable construction material.

Supervisor: Prof AJ Babafemi
Co-supervisor: Prof GPAG van Zijl

KING, Jacobus Coenraad Petrus (Industrial Engineering)

A new vehicle routing problem for increased driver-route familiarity

Vehicle routing solutions face implementation challenges if drivers get lost or take roads that are unsuitable for their vehicles. This study offers a framework for improving the practical implementation of planned vehicle delivery routes by increasing driver-route familiarity. The framework includes two novel mathematical models and accompanying approximate-solution approaches, which are capable of returning high-quality vehicle routing solutions (in terms of both cost and driver-route familiarity) within an acceptable time-frame. The framework is verified using benchmark data and validated in a real-world case study in the South African retail sector.

Supervisor: Prof JH van Vuuren

MALHERBE, Cornelia (Industrial Engineering)

A model design for an integrated monitoring, management and reporting approach for university research contracts

Universities face several challenges that can have a direct impact on their ability to put best practices in place to govern, comply with and risk-manage research contracts, without being overcontrolling and unintentionally limiting their research offering. Without an integrated monitoring, management and reporting approach to research contracts throughout the enhanced contract lifecycle, universities are vulnerable to significant risks from several sources, which could otherwise be proactively identified, managed and/or mitigated. Therefore, this study results in the model design for an integrated monitoring, management and reporting approach for research contracts.

Supervisor: Prof CSL Schutte

MBANEFO, Chibuike Cornelius (Biomedical Engineering)

Healthcare ecosystem development: Exploring small and medium enterprise participation and innovative engagement in digital platform-based ecosystems

Platform ecosystems are a novel approach to collaboratively generate value across industries. Despite their growing prominence, the evolution of these ecosystems has predominantly centred on the roles of platform owners and their interactions with customers, neglecting the intricate engagement strategies of various other actors in the ecosystem, particularly small and medium enterprises (SMEs). To address this gap, this study develops a framework and management tool to facilitate SMEs' participation and innovative engagement in digital platform-based ecosystems. Using the design science research approach, the study ranks and prioritises activities in the ecosystem, drawing insights from experts, survey responses, and case studies from the healthcare industry.

Supervisor: Prof SS Grobbelaar
Co-supervisor: Prof A Botha

OGUAKA, Anene Basil Chukwuzubelu (Civil Engineering)

Pyrolysis, ignition and fire behaviour of agricultural food grains

Agricultural food grains have been involved in disastrous fires around the world for decades. This study investigates the flaming and smouldering fire behaviour of food grains, including the impact of their physical properties. The activation energies, heat release rates, critical heat fluxes, thermal response parameters and smouldering speeds, all of which had been largely unknown, are now quantified. Analysis indicates that oil content has a significant impact on thermal decomposition and thermal hazard, while grain particle size and bulk porosity mostly affect ignitability and smouldering respectively. This knowledge can limit the risk of fires in food facilities, thus improving food security.

Supervisor: Prof RS Walls
Co-supervisor: Dr N Flores-Quiroz

PESCH, Heino (Industrial Engineering)

Exploring the use of plant factories for the production of biomass for the biorefining industry

This study examines the use of plant factories for the production of biomass and value-added compounds for the biorefining industry. It develops a conceptual model of the plant factory system, evaluates crop selection for biorefining markets, explores integration with external industries, and assesses the economic feasibility of plant factories. The study concludes that plant factories have economic potential beyond the food market, especially in the biopharmaceutical sector. The research provides valuable insights into plant factory systems and their potential for industrial integration. Additionally, it offers novel plant factory scenarios for producing biomass feedstocks for new biomass markets.

Supervisor: Prof L Louw

ROELOFSE, Christian Eric (Electronic Engineering)

Probabilistic conflict prediction: an accurate and computationally efficient approach

Conflict prediction is a vital component of motion planning for autonomous vehicles to ensure safe operation. It is essential for a prediction method to assess the conflict risk quickly and accurately so that the vehicle can swiftly react to dangerous situations. This study proposes a probabilistic conflict prediction method based on a novel reformulation of the conflict prediction problem in terms of the first-passage time. The proposed method is tested in simulation and compared to state-of-the-art conflict prediction methods. The results show the same accuracy as existing methods, but at a significantly reduced computational cost.

Supervisor: Dr CE van Daalen

TAYLOR, Nicole Catherine (Mechatronic Engineering)

A human cyber-physical system to study the motion sickness of seafarers

This study develops a novel concept, called Mariner 4.0, to encourage the uptake of virtual counterparts to support people on ships. A Mariner 4.0 platform comprising software and physical elements is implemented and trialled in a real-world case study. A real-time representation of motion sickness in seafarers is digitally captured through a custom-developed application and a shipboard measurement system. Real-time analysis of the data extracts novel diagnostic criteria as guidelines for estimating the incidence of motion sickness. The Mariner 4.0 platform serves as a monitoring tool and a research instrument that advances the understanding of motion sickness on board ships.

Supervisor: Dr K Kruger
Co-supervisor: Prof A Bekker

VAN DER SPUY, Danie (Civil Engineering)

Improved statistical flood frequency estimation approach for South Africa

Flood frequency analysis in South Africa is hampered by the unbounded nature of existing distributions and the insufficiency of appropriate plotting positions to guide distribution selection due to an inability to deal with outliers. Analyses of 41 flow stations, representing 3 615 years of data, result in an improved plotting position, utilising the Z-score statistics of the dataset and named the Z-set plotting position, and an improved distribution, named the IPZA, utilising multiple regression analysis. Both prove to produce more consistent results, which are less affected by record lengths. Z-set offers a more sensible plotting position in respect of outliers, while IPZA proves to be virtually unaffected by outliers.

Supervisor: Prof JA du Plessis

VAN ECK, Hano (Mechanical Engineering)

The effect of a crossover diffuser configuration on the performance of a mixed-flow compressor stage for a micro gas turbine engine

Mixed-flow compressor configurations are prevalent in micro gas turbine (MGT) engines. Fitting these with a crossover diffuser allows for superior diffusion and flow realignment within the space restrictions attributed to MGT engines. Compressor performance is largely affected by diffuser design. This study explores various crossover diffuser configurations, aiming to improve compressor design point performance and operating range. Novel diffuser configurations include tandem vane, splitter vane, and combination configurations. It is shown that these provide superior design point performance compared to legacy diffuser types, as well as increased operating range when compared to single-vane crossover diffuser configurations.

Supervisor: Prof SJ van der Spuy

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OTHER QUALIFICATIONS | ANDER KWALIFIKASIES

Master in Engineering Science in Biomedical Engineering
Magister in Ingenieurswetenskappe in Biomediese Ingenieurswese

Parker, Irshaad Ahmad (Biomedical Engineering) *(cum laude)*

Master of Engineering
Magister in die Ingenieurswese

Ajayi, Babatunde Luke (Civil Engineering)
Anker, Carike (Mechatronic Engineering)
Brown, Nathan (Electronic Engineering) *(cum laude)*
Cairns, Melissa Claire (Civil Engineering) *(cum laude)*
Chaima, Catherine Tasankha (Chemical Engineering) *(cum laude)*
Chakawa, Dennis (Chemical Engineering)
Chifomboti, Lindah Phambala (Chemical Engineering)
Cishugi, Elijah Seth (Electronic Engineering)
De Swardt, Urs Johann (Electronic Engineering) *(cum laude)*
De Wet, Dominique (Electrical Engineering)
Duminy, Jan-Hendrik Marthinus (Chemical Engineering)
Engel, Annika Mareike (Engineering Management) *(cum laude)*
Engelbrecht, Martinique Celeste (Mechanical Engineering)
Geldenhuys, Christiaan Martinus (Electronic Engineering)
Goos, Pieter (Electronic Engineering) *(cum laude)*
Gouws, Hendrik Louis (Mechanical Engineering)
Heyns, Jana (Industrial Engineering)
Hugo, Devlin Johnathan (Electronic Engineering)
Hull, Keegan Jarryd (Electronic Engineering)
Jayeola, Omofolasewa Hillary (Chemical Engineering)
Johnston, Henry Bruce Ian (Electronic Engineering)
Klaver, Monique (Chemical Engineering) *(cum laude)*
Kleyn, Riaan (Engineering Management)
Kneissl, Anja (Engineering Management) *(cum laude)*
Kristensen, Isabella Joy (Chemical Engineering) *(cum laude)*
Kruger, Monique (Engineering Management)
Le Roux, Hendrik Pieter (Chemical Engineering)
Le Roux, Stefan (Mechatronic Engineering) *(cum laude)*
Lotter, Kyle (Electronic Engineering)
Lourens, Corné (Chemical Engineering)
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Lubbe, Inge (Mechanical Engineering)
Mabusha, Kabo Onesmo (Electronic Engineering)
Marx, Dorian (Mechanical Engineering) *(cum laude)*
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Middleton, Francesca Sarah (Chemical Engineering) *(cum laude)*
Mogale, Setekoane Phillemon (Civil Engineering)
Mokakatlela, Mokakatlela Robert (Industrial Engineering)
Moyo, Tsitsi (Industrial Engineering)
Mudongo, Ronald Lenyatso (Electrical Engineering)
Mukoni, Esmeralda (Electrical Engineering) *(cum laude)*
Murdoch, Andrew (Electronic Engineering) *(cum laude)*
Nicholls, Katherine Mary (Mechatronic Engineering)
Nieuwoudt, Lorelei (Electronic Engineering) *(cum laude)*
Pambo, Carlos Euclides Tomas (Industrial Engineering) *(cum laude)*
Park, Minsol (Mechanical Engineering) *(cum laude)*
Saayman, Rolf Bernard (Civil Engineering)
Samuriwo, Tamuka Nigel (Electronic Engineering)
Sander, Carl Ludwig (Electrical Engineering)
Schlebusch, Izak David (Chemical Engineering) *(cum laude)*
Simon, Mia Jeanette (Civil Engineering) *(cum laude)*
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Smith, Esteé Nydene (Civil Engineering) *(cum laude)*
Snyman, Sandra (Electronic Engineering) *(cum laude)*
Theron, Andre Luke (Industrial Engineering)
Tredoux, Larissa Heleen (Electronic Engineering) *(cum laude)*
Van Bruggen, Arno Henk (Mechatronic Engineering) *(cum laude)*
Van der Merwe, Arneau Jacques (Industrial Engineering) *(cum laude)*
Van Gruting, Ulrich (Industrial Engineering) *(cum laude)*
Van Wijk, Adriaan Jacobus (Electronic Engineering)
Van Zyl, Christiaan Alexander (Electronic Engineering) *(cum laude)*
Van Zyl, Jacobus Gerhardus (Mechanical Engineering)
Van Zyl, Raynhardt Vincent (Electronic Engineering)
Visser, Carl-Hein (Mechatronic Engineering) *(cum laude)*
Walter, Selina (Engineering Management) *(cum laude)*
Wessels, Waldo (Mechatronic Engineering)

Postgraduate Diploma in Engineering
Nagraadse Diploma in die Ingenieurswese

Agulhas, Alewieyah
Babeli, Bongani Edmund Babeli
Baloyi, Jabu Doctorly
Barbour, Michael Rene
Carelse, Tyrone
Chabalala, Sydney Vutivi
Fadane, Amanda
Hlatshwayo, Tivo Bafana
Lamula, Sabelo Boy
Magondo, Arthur
Mannix, Kim Teresa *(cum laude)*
Maphanda, Khangwelo *(cum laude)*
Mapinda, Brendon Simbarashe
Maumela, Munaka Christopher
Mdaka, Mpho Godwill
Mdikane, Sakhe
Mojalefa, Tshwarelo Medelace
Mokete, Tsukulu
Mongwe, Gavaza *(cum laude)*

Motaung, Kaelo *(cum laude)*
Mtshali, Sakhile Mphumeleli
Mwewa, Mutale
Naicker, Tamiel
Namwoonde, Letty Ndeuky *(cum laude)*
Rahim, Shifaa
Redelinghuys, Franco
Sello, Lebohang Jacqueline
Shepherd, Donald Emmanuel
Strydom, Martin *(cum laude)*
Van Rensburg, Jacques
Zungu, Senamile Nonsikelelo

Bachelor of Engineering
Baccalaureus in die Ingenieurswese

Adams, Laila (Mechatronics)
Adams, Tracy Lorret (Industrial)
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Alcock, Keenan Richard (Electrical and Electronic)
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Alperstein, Bevan (Mechatronics)
Arnold, Cameron (Electrical and Electronic)
Avondo, Luca Papanicolaou (Chemical)
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Barnard, Johannes Jacobus (Mechatronics) *(cum laude)*
Basson, Neil Christean (Industrial)
Bayley, Diana Veronica (Civil)
Becker, Yoshua (Civil)
Bekker, Neil Francois (Electrical and Electronic)
Bergesen, Alexander James (Mechatronics)
Bester, Murray Michiel (Mechatronics)
Blecher, Nick Sebastian (Mechanical)
Boden, Nicholas Bryce (Mechatronics)
Boshoff, Louis Wilhelm Ernst (Industrial)
Boswell, Jordan Steven (Mechanical)
Botha, Ben-Ernst (Mechatronics)
Bradfield, Keighan (Industrial)
Brink, Danielle (Industrial)
Bristow, Aidan Ridgeway Philip (Industrial)
Brittz, Leroux (Electrical and Electronic)
Brougham-Cook, Mathew (Mechanical)
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Buchanan, Bradley Richard (Mechatronics) *(cum laude)*
Buchanan, Scott Daniel (Civil)
Buck, Damian James (Mechanical)
Buhrs, Jemma Ann (Industrial)
Campbell, Kelly Susan (Chemical)
Campbell, Nicholas Evan (Mechatronics)
Carolissen, Ambre (Chemical)
Carstens, Stephan Christian (Electrical and Electronic) *(cum laude)*
Celliers, Charles Peter (Mechatronics)
Champion, John Marais (Civil)
Chazhikadan, Alisha Sarah Joseph (Mechanical)
Chetty, Brandon (Mechatronics)
Cloete, Reze (Industrial)
Coetzee, Danya (Chemical)
Coetzee, Heinrich Willem (Electrical and Electronic)
Coetzee, Michiel (Chemical)
Coetzer, Johan Frederik Otto (Mechatronics)
Colley, Adam James (Electrical and Electronic)
Cornelissen, Abraham De Vries (Mechanical)
Crews, Madison (Electrical and Electronic)
Cronje, Dirk Frier (Electrical and Electronic)
Croome, Cherylynn (Chemical)
Croxford, Aidan Keith (Mechatronics) *(cum laude)*
Cyster, Lauren Kim (Chemical)
Dalvi, Abrar Ahmed (Civil)
Darries, Hammaad (Electrical and Electronic)
Davies, Brandon Aaron (Electrical and Electronic)
De Beer, Conrad Eduard Jan (Civil)
De Jongh, Sunelle (Industrial)
De Raay, Yasmin (Industrial)
De Ridder, Mia Francoise (Electrical and Electronic)
De Villiers, Caroline Michelle (Mechanical) *(cum laude)*
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De Waal, Waldo Johannes (Electrical and Electronic)
De Wet, Delano (Industrial)
De Wet, Jakobus Pierre (Industrial)
De Wet, Lize (Mechanical)
De Wet, Tené (Electrical and Electronic) *(cum laude)*
Delmulle, Luke Connor (Mechatronics)
Delport, Petrus Johannes (Mechatronics)
Dibate, Gosego (Mechatronics)
Ditlhokwa, Aobakwe Rorisang (Civil)
Dooge, Michael Damian (Mechatronics)
Du Plessis, Alexander Andries (Industrial)
Du Plessis, Armand (Industrial)
Du Plessis, Benita Lara (Industrial)
Du Plessis, Mia (Industrial)
Du Plessis, Michael (Mechanical)
Du Preez, David Schalk (Mechanical)
Du Preez, Petrus Schabort (Industrial)
Du Toit, Daniel (Mechanical)
Duffin, Keegan James (Mechanical)
Durr, Calvin (Mechatronics)
Dyasi, Simanye (Industrial)
Edmunds, David Andrew (Mechanical)
Eggert, Daniel (Electrical and Electronic)
Elliott, Maxine Sylvie Vanderlinden (Industrial)
Ellis, Ludwig Alexander (Mechanical)
Ellis, Paul Roux (Electrical and Electronic) *(cum laude)*
Els, Heinrich Herman (Civil)
Engelbrecht, Edrich Theodor (Mechatronics) *(cum laude)*
Engelbrecht, Hanzel (Mechanical)
Engelbrecht, Sven (Industrial)
Epler, Nico (Mechatronics)
Erasmus, Christopher Stefan (Mechatronics)
Erasmus, Melissa (Chemical)
Erasmus, Nirelle Jaydah (Civil)
Erasmus, Shane (Electrical and Electronic)
Esterhuizen, Johannes Jacobus (Mechanical)
Everitt, Amy Louise (Mechatronics)
Farrell, Minette (Electrical and Electronic) *(cum laude)*
Fergusson, Angus Kenneth (Mechatronics)
Ferrant, Matthew Richard (Industrial)
Ferreira, Elizabeth (Industrial)
Findlay, Kodi Michael (Electrical and Electronic)
Fontini, Simone (Chemical)

Foord, Emlyn (Chemical)
Franklin, Jason Graham (Mechanical)
Fredericks, Mogammat Cassiem (Civil)
Fuller, Wikus (Mechatronics)
Gallop, Ayron (Civil)
Gardiner, Ella Aubany (Mechatronics)
Garstman, Marco (Mechatronics)
George-Kayode, Praise Oluwasegun (Electrical and Electronic)
Gerber, Nina (Industrial)
Gerber, Ryno (Mechatronics) *(cum laude)*
Gertse, Ruberd Henry (Civil)
Gibson, Ruby Josephine (Civil) *(cum laude)*
Goldacre, Daniel (Mechanical)
Goldschmidt, James Matthew (Industrial)
Govender, Nishalan (Mechatronics)
Govender, Triven (Mechatronics)
Green, Bradley Michael (Mechatronics)
Green, Caleigh Lara (Mechanical)
Greyling, Alexander Christiaan (Mechanical)
Greyling, Barend Christiaan Bester (Mechanical) *(cum laude)*
Grobbelaar, Francois (Industrial)
Grobler, Phillip Rudolph (Electrical and Electronic)
Groenewald, Janneke (Civil)
Groves, Dane Matthew (Mechatronics) *(cum laude)*
Gruber, Celina (Industrial)
Gumbi, Njabulo Zethembiso (Mechatronics)
Harrison, Daniel Adrian (Mechanical)
Heale, Dylan Andrew (Mechatronics)
Hendriks, Evan Pierre (Chemical)
Henning, Xander Ockert (Civil)
Heyns, Talita (Industrial)
Hickson, Dylan (Mechanical)
Higgo, Jean-Pierre Schalk (Industrial)
Hill, Franco Robert (Electrical and Electronic)
Hillebrand, Reon (Electrical and Electronic)
Hlonyane, Athenkosi (Mechatronics)
Holtshausen, Damian Luke (Electrical and Electronic)
Hoosain, Mohammed Azhar (Civil) *(cum laude)*
Horne, Aleksei William (Electrical and Electronic)
Huskisson, Jacques Carl (Industrial)
Hutton, Alexander Ben (Mechatronics)
Ingle, Andrew Richard (Mechatronics)
Isaacs, Alia (Civil)
Jacobs, Eric Roelf (Electrical and Electronic)
Jacobs, Liam Casey (Electrical and Electronic)
Jacoby, Toni Leigh (Industrial)
Jahura, Anesu (Industrial)
Janse van Rensburg, Alfonso (Electrical and Electronic)
Jeggels, Dean Edward (Electrical and Electronic)
Johnson, Lee Stephen (Electrical and Electronic)
Johnson, Shaun William (Mechatronics)
Jones, Andries Gabriël (Industrial)
Jooste, Reghardt Abraham (Electrical and Electronic)
Jordaan, Waldo (Electrical and Electronic)
Joubert, Pieter Campbell (Mechatronics)
Julius, Myles Joshua (Industrial)
Kamaloodien, Yusuf (Electrical and Electronic)
Kandanga, Kapena Ngutjiwa (Chemical)
Kapery, Daanyaal (Civil)
Ketteringham, Jordan Stuart (Electrical and Electronic)
Kieser, Keegan Ruth (Civil)
Kirkman, Abbey Lea (Mechatronics)
Klaassen, Allison Georgia (Civil)
Kloppers, Conrad Jozua (Electrical and Electronic) *(cum laude)*
Kloppers, Cornelia Margaretha (Industrial) *(cum laude)*
Knipe, Richard Alexander (Electrical and Electronic) *(cum laude)*
Knoetzen, Rohan (Civil)
Koetsier, Tenzin Mir Francis (Mechanical)
Koopman, Ruoal Leonardo (Mechanical)
Kordom, Llewellyn (Mechatronics)
Kotzé, Hugo Pieter (Industrial)
Kotze, Zanelle (Industrial)
Kruger, Chris-Jan (Electrical and Electronic)
Kruger, Christo Charl (Electrical and Electronic)
Kruger, Louis (Mechanical)
La Grange, Sean (Mechatronics)
Lailvaux, Denham Jacques (Chemical)
Laing, Robert Thomas Colum (Industrial)
Langenhoven, Grant Angelo (Civil)
Laubscher, John Michaél Steyn (Industrial)
Lawrenson, Sian Emma (Chemical)
Lazarus, Kaylin (Chemical)
Le Roux, Edelbert Bentinch (Electrical and Electronic)
Le Roux, Megan (Mechatronics)
Le Roux, Phillip Hugo (Electrical and Electronic) *(cum laude)*
Lekcharoensuk, Tonnam (Electrical and Electronic)
Liebenberg, Ryan Jeffrey (Industrial)
Liebl, Cornelius Viktor (Electrical and Electronic)
Little, Candice Ann (Chemical)
Louw, Frederick Johannes (Civil)
Louw, Retief Gideon Arno (Mechatronics) *(cum laude)*
Louw, Ruhan (Mechatronics)
Lubbe, Enrico (Mechatronics)
Lubbe, Kianne Fransha (Industrial)
Lund, Gustaaf Wilhelm (Civil)
Lund, Sharé (Industrial)
Lunde, Thomas Eigil (Mechatronics)
Lyners, Aidan Joshua (Electrical and Electronic)
Mabulana, Thapelo Joy (Mechatronics)
Machtelinckx, Timon (Mechatronics)
Makinde, Anuoluwa Esther (Mechatronics)
Makondo, Yinhla Hope (Mechanical)
Malan, Simon Daniël (Electrical and Electronic)
Manzini, Yusuf (Civil)
Marais, Jan Gabriël (Mechanical)
March, Steven Carl (Civil)
Maree, Janke (Industrial)
Maritz, Deon Christiaan (Mechanical)
Maritz, Rosanne (Electrical and Electronic)
Maruta, Rutendo Munashe (Industrial)
Masefield, Jessica (Industrial) *(cum laude)*
Maseko, Khanyisile Mandisa (Industrial)
Masilela, Karabo (Civil)
Masimong, Tshegofatso (Industrial)
Matseliso, Tau Samuel (Civil)
Maynard, Ryan John (Electrical and Electronic)
Mayosi, Hlonela (Industrial)
Mazor, Nadav (Electrical and Electronic)
Meyer, Abraham Johannes Joubert (Electrical and Electronic)
Meyer, Duval (Industrial)

Meyer, Kyla (Industrial)
Mkhize, Uyanda Portia (Mechanical)
Modi, Falak (Mechatronics)
Mogano, Pleasure Pheladi (Civil)
Mogodi, Tshiamo (Electrical and Electronic)
Moodley, Sashane (Electrical and Electronic)
Moolman, Johannes Willem (Mechatronics) *(cum laude)*
Morgan, Eden-Lee (Mechanical)
Mostert, Jacobus Christiaan (Mechanical)
Motabola, Thuto Leonard (Civil)
Mouton, Corine (Chemical)
Mouton, Louis Nel (Mechatronics)
Mtimkulu, Thando (Electrical and Electronic)
Muller, Rhyn (Electrical and Electronic)
Muller, Sean Ross (Electrical and Electronic) *(cum laude)*
Mvelasi, Lindokuhle (Mechatronics)
Mwongo, Mwiti Mugambi (Civil)
Myburgh, Ryan Andrew (Mechatronics)
Namachemo, Michelle (Civil)
Nash, Sheldon Peter (Mechatronics)
Ncedo, Siphosenkosi (Civil)
Ndika, Bulela Zandi (Mechatronics)
Nel, Karel Johannes (Civil)
Nel, Walter Riaan (Industrial)
Nkambule, Nobantu Violah (Electrical and Electronic)
Noordien, Muhammad (Mechanical)
Ntsoane, Thakgatso Maphuti (Industrial)
Nwagboso, Joseph Chukwuemeka (Mechanical)
Nyamayaro, Elaine Isabella (Mechatronics)
Odendal, Martia (Chemical)
Olivier, Edwin (Chemical)
Oosthuizen, Anouk (Industrial) *(cum laude)*
Oosthuizen, Jake Carson (Industrial)
Oosthuizen, Kundra (Mechanical) *(cum laude)*
Oosthuysen, Cameron (Electrical and Electronic)
Palamootil, Shankar Mathew (Mechatronics)
Parkar, Nabeela (Industrial)
Parkins, Giovanni Angelo (Electrical and Electronic)
Phillips, Anique Kim (Mechatronics)
Poole, Victor (Industrial)
Potgieter, Gerhardus Ignatius (Industrial)
Pretorius, Lourens Badenhorst (Mechanical)
Pretorius, Talitha (Industrial)
Prinsloo, Guillieano Clayton (Mechanical)
Prinsloo, Hendrik Petrus (Mechatronics)
Prinsloo, Lise Mari (Electrical and Electronic)
Prozesky, Matthew Leon (Mechatronics)
Puchert, Jacquetta Sylbrina (Mechanical)
Rabie, Marion Lee (Industrial)
Raju, Kyle (Chemical)
Ranchod, Meshai (Civil)
Raphasha, Refiloe Qhawekazi (Chemical)
Rawraway, Rachel Lorin (Electrical and Electronic) *(cum laude)*
Rayner, Jordan (Mechatronics)
Reddy, Caitlyn (Mechatronics)
Rens, Judhí (Electrical and Electronic)
Rossouw, Alexis Schneider (Mechanical)
Rossouw, Joanè (Industrial)
Rossouw, Paul Dawie (Electrical and Electronic) *(cum laude)*
Rouhani, Tariq Ihsan (Electrical and Electronic)
Ruzive, Grace (Electrical and Electronic)
Sampson, Byron Grant (Electrical and Electronic)
Sanders, Zachary Peter (Mechanical)
Schoeman, Samuel Timotheus (Mechatronics)
Schoonbee, Francois (Industrial)
Sello, Joshua Tokollo (Electrical and Electronic)
Sendzul, Adam Daniel (Mechatronics)
Seymour, Lewis (Industrial)
Sharratt, Emma Lori (Mechatronics)
Sher, Jamie (Electrical and Electronic)
Shiel, Erin Leigh (Mechatronics)
Sims-Handcock, Chad Calvin (Electrical and Electronic)
Smidt, Zané (Chemical)
Smit, Inge (Civil)
Smith, Bradley (Civil)
Smith, Carl Donovan (Electrical and Electronic) *(cum laude)*
Smith, Kyle Nishkar (Mechanical)
Snyman, Tiaan (Electrical and Electronic)
Spamer, Luané (Mechatronics)
Spies, Luka (Industrial) *(cum laude)*
Steele, Oliver Marc (Mechanical)
Steyn, Kari (Civil)
Steyn, Ruan Scott (Mechatronics)
Stockhall, Elijah Mark (Mechanical)
Stokes, Dean (Electrical and Electronic)
Strobos, Anje (Mechatronics)
Strydom, Marthinus Johannes (Chemical)
Swart, Caitlin Francis (Industrial)
Swart, Hein Joubert (Industrial)
Swart, Luke (Electrical and Electronic)
Swart, Petrus Daniël (Industrial)
Swartz, Tyrese Joel (Electrical and Electronic)
Tachiveyi, Tadzie Tyvor (Electrical and Electronic)
Taylor, Ruben (Industrial)
Theron, Antoinette (Mechatronics)
Theron, Carla Elize (Mechatronics)
Theron, Daniel Philip (Electrical and Electronic)
Titus, Matt (Chemical)
Tladinyane, Sihle (Mechanical)
Tlhabadira, Kabelo (Civil)
Toerien, Eugene Malan (Civil)
Totos, Deavin (Electrical and Electronic)
Troost, Dirk Jacob (Industrial) *(cum laude)*
Tshonda, Deborah Bosongo (Civil)
Tukker, Daniel Alexander (Industrial)
Turley, Dean Hunter (Industrial)
Uys, Dirk Cornelis (Mechatronics)
Van Antwerpen, Tiaan (Industrial)
Van den Berg, Anrich (Civil)
Van den Berg, Ruan (Chemical)
Van der Bank, Divan Kes (Mechatronics) *(cum laude)*
Van der Merwe, Anja (Industrial)
Van der Merwe, Nicola (Industrial)
Van der Spuy, Chanté Charisa (Mechatronics) *(cum laude)*
Van der Westhuizen, Claudia (Mechatronics)
Van der Westhuizen, Donald (Electrical and Electronic)
Van Duyker, Duvan Kemp (Mechanical)
Van Dyk, Jacobus George (Chemical)
Van Eck, Ruben Johan (Industrial)
Van Eden, Dylan Stewart (Civil)
Van Heerden, Kara Annelize (Civil)
Van Niekerk, Christoffel Hendrik (Mechanical)
Van Niekerk, Daneel Theunis Jakobus (Civil)

Van Papendorp, Stephanie (Industrial)
Van Rensburg, Max (Chemical)
Van Rensburg, Petrie (Industrial)
Van Rooyen, Aneshka Michelle (Chemical)
Van Rooyen, Aschwin (Industrial)
Van Straaten, Abraham Johannes Jacobus (Civil)
Van Tonder, Deon (Industrial)
Van Veen, Andries Rein Lucas (Mechatronics)
Van Wyk, Shana (Chemical)
Van Wyk, Theodore Michailov (Electrical and Electronic) *(cum laude)*
Van Zyl, Carlo (Mechatronics)
Van Zyl, Christiaan Carl (Industrial)
Van Zyl, Emile Jacobus (Civil)
Van Zyl, Lambertus (Industrial)
Van Zyl, Xander Rouxdré (Electrical and Electronic)
Venter, Rudi (Electrical and Electronic)
Vermaak, Damian Johan (Mechatronics)
Vivier, Tiaan (Mechanical)
Vlok, Elizabeth Marié (Civil)
Vorster, Dylan (Electrical and Electronic) *(cum laude)*
Vorster, Gardi (Industrial)
Vorster, Jenika (Industrial)
Warui, Kamonde (Mechatronics)
Watt, Nicholas Spencer (Mechatronics)
Watts, Steven Brett (Electrical and Electronic) *(cum laude)*
Wells, Ronan Gray (Mechatronics)
Weyers, Phillip Cameron (Chemical)
Whiteboyd, Chloe (Industrial)
Wiid, Lawrence (Industrial)
Williams, Ivan (Mechanical) *(cum laude)*
Wilsnagh, Caitlin Jenna (Mechatronics)
Winter, Connal Daniel (Mechatronics)
Winter, Kyran Christopher (Industrial)
Winter, Thomas Simon (Industrial) *(cum laude)*
Wolmarans, Bianca (Chemical)
Wood, Tyron Lee (Mechatronics)
Wright, Nicholas Joshua (Civil)
Zapke, Karl (Mechanical)

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Faculty of Science (Group 1)

13 December 2023 | 13:00

Fakulteit Natuurwetenskappe (Groep 1)

13 Desember 2023 | 13:00

Programme

Please stand	1. Entrance of academic procession into the hall.
Please stand	2. Playing of the National Anthem.
Please sit	3. Congregation formally constituted by the Vice-Chancellor.
	4. Welcome by the Vice-Chancellor.
	5. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Vice-Chancellor.
	6. Introduction of the candidates for the Chancellor's Awards and presentation of the awards by the Vice-Chancellor.
	7. Closing by the Vice-Chancellor.
Please stand	8. The academic procession leaves the stage.

Program

Staan asseblief	1. Akademiese prosessie kom die saal binne.
Staan asseblief	2. Speel van die Nasionale Lied.
Sit asseblief	3. Formele konstituering deur die Visekanselier
	4. Verwelkoming deur die Visekanselier.
	5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Visekanselier.
	6. Voorstelling van kandidate vir die Kanselierstoekennings en oorhandiging van die toekennings deur die Visekanselier.
	7. Sluiting deur die Visekanselier.
Staan asseblief	8. Akademiese prosessie verlaat die verhoog.

Faculty of Science (Group 1)
Fakulteit Natuurwetenskappe (Groep 1)

DOCTORAL QUALIFICATIONS | DOKTORALE KWALIFIKASIES

DOCTOR OF SCIENCE
DOKTOR IN DIE NATUURWETENSKAPPE

CLOETE, Thomas Eugene (Microbiology)

Functionalised nanofibres for water treatment

Access to safe drinking water is a global issue that affects health and economic development. Functionalised nanofibres are a potential solution for water treatment, with biocidal activated nanofibres proven to kill a variety of bacteria, including *E. coli*, *S. aureus*, *S. typhimurium*, *P. aeruginosa* and *K. pneumoniae*. This study explores immobilised enzymes to break down biofilms and prevent their formation. Non-woven mats made of polyacrylonitrile (PAN) are fabricated through electrospinning processes, retaining over 80% of the enzymes' specific activity. A cartridge filter, where activated carbon is encased in electrospun nanofibres, is manufactured, evaluated, and successfully used to purify water.

Supervisor: Prof G Wolfaardt
Co-supervisor: Prof B Klumperman

DOCTOR OF PHILOSOPHY
DOKTOR IN DIE WYSBEGEERTE

ALDRICH, Dirk Jacobus (Genetics)

Characterisation of citrus tristeza virus-induced stem pitting in citrus

Citrus tristeza virus (CTV) is a major pathogen that causes disease in citrus, particularly stem pitting, which leads to economic losses in sensitive citrus varieties. This study investigates the induction of stem pitting using CTV-infectious clones. Recombinant CTV clones are generated, and specific replacements of certain open reading frames are identified to induce severe stem pitting. Metabolite profiling reveals differences between stem pitting groups, with antioxidant and stress signalling compounds identified. The molecular anatomy of stem pits is characterised through known and novel visualisation techniques. The research advances our understanding of CTV-induced stem pitting and establishes a foundation for targeted further investigation.

Supervisor: Prof HJ Maree
Co-supervisors: Dr R Bester, Prof JT Burger

JENKINS, Bernice (Biochemistry)

Discovery of novel anti-*Candida albicans* compounds from environmental bacteria

This study developed a medium-throughput multiplex assay system (MPAS) for discovering compounds against *Candida albicans*, a fungal pathogen responsible for severe infections. The MPAS is employed to effectively assess the activity of compounds against different *C. albicans* life stages, including planktonic cells, young and mature biofilms, and dispersed cells. Culture extracts from soil microbes with potent activity against *C. albicans* life stages were identified, and ultra-performance liquid chromatography linked to mass spectrometry was utilised to characterise the active anti-*Candida* compounds from soil bacteria. The findings contributed to compound discovery, which is important for future drug development to combat *Candida* infections.

Supervisor: Prof M Rautenbach
Co-supervisor: Prof JL Snoep

KLOPPER, Kyle Brent (Microbiology)

Elucidating the duality of biofilms as both a proliferation and survival strategy using novel IoT technology

Biofouling caused by microbial biofilms and the cells that they release is a detrimental and costly challenge with far-reaching effects, such as hospital-acquired infections and contamination of industrial water systems and food processing facilities. The novel BioSpec system provides a simple, reliable and cost-effective tool to monitor biofilm biomass at high resolution and in real time by leveraging IoT (Internet of Things) sensors. Coupling BioSpec with the carbon dioxide evolution measurement system provides an unprecedented level of insight into the dynamic fundamentals of microbial survival and proliferation in biofilms, and an effective tool for routine monitoring of anti-fouling chemical treatment.

Supervisor: Prof G Wolfaardt

LE ROUX, Samantha Gailene (Chemistry)

Probing the nature of interactions in molecular materials, using high-pressure single-crystal X-ray diffraction

Dynamic properties in crystalline materials have important applications in smart materials, where the physical properties of materials are altered through the application of external stimuli. High pressure was used to understand how the properties of crystals could be tailored, focussing on three molecular materials. The application of pressure to these materials resulted in the formation of unusual bonds, changes in magnetic behaviour and the acceleration of solid-state reactions. This demonstrated that pressure is a suitable stimulant to induce changes in the existing properties of molecular materials, and sets the stage for development of materials with properties that switch on the application of pressure.

Supervisor: Prof DA Haynes

MAGGOTT, Emile Darron (Chemistry)

Catalytic systems based on metal-decorated porous organic polymers for use in oxidative transformations

In this study, novel porphyrin-based porous organic polymers (POPs) are developed, decorated with catalytically active metals, and characterised using a range of solid-state techniques. These metalated POPs are evaluated as catalysts for converting lignin-derived precursors into valuable aldehydes and carboxylic acids, while also mediating the oxidative coupling of alcohols and amines to produce biobased imines and amides. The resulting products can serve as building blocks for specialty chemicals such as pharmaceutical ingredients, fragrances and biodegradable surfactants. Among the catalysts tested, Cu-POP1 demonstrates superior performance. Recovery and reuse of this catalyst is found to be possible, resulting in a more sustainable catalytic process.

Supervisor: Prof SF Mapolie
Co-supervisor: Dr DA Haynes

MAMOGOBO, Maribolle Lientjie Charlotte (Chemistry)

Approaches to novel *N*-hetero(poly)cyclic compounds using A^3 multicomponent and intramolecular Heck reactions

Substituted benzoquinolines are important structures found in natural products and serve as potential scaffolds in medicinal chemistry. This study examines the synthesis of phenyl-substituted benzoquinolines, using two different synthetic approaches. The initial strategy involves an A^3 multicomponent reaction between a substituted 2-aminonaphthalene and various phenylacetylenes and benzaldehydes. This approach yields unexpected benzoquinoline regioisomers, structurally confirmed by single crystal X-ray crystallography, which have potential as medicinal scaffolds. The second synthetic approach involves the construction of a polycyclic benzo[*g*] isoquinoline derivative through the use of a tandem Heck catalysis approach, which provides new monocylised benzoquinolines.

Supervisor: Prof WAL van Otterlo
Co-supervisor: Prof IR Green

MOLOTO, Bryan Phuti (Chemistry)

Fundamental palladium-catalyzed oxidative addition reactions

Using quantum chemical investigations, this study identifies the mechanisms involved in the oxidative addition step of the palladium-mediated activation of a series of $C(sp^n)$-X and A-A bonds (n = 1-3; X = F, Cl, Br, I; A = C, N, O, F) in archetypal model substrates. This, in turn, enables the establishment of reactivity trends, which are the result of a subtle balance between reduced activation strain and enhanced electrostatic attraction, or backbonding interactions, between the palladium catalyst and the substrate

Supervisor: Prof C Esterhuysen
Co-supervisor: Prof FM Bickelhaupt *(external)*

MOSTERT, Ilani (Genetics)

Investigating the interactome of grapevine leafroll-associated virus 3 and *Vitis vinifera*

Grapevine leafroll-associated virus 3 (GLRaV-3) proteins were investigated for their role in virus proliferation and grapevine leafroll disease (GLD). Intraviral protein interactions reveal that GLRaV-3's virion composition and method of assembly is similar to that of closteroviruses. GLRaV-3 proteins interact with *Vitis vinifera* proteins connected to the host defence response. These interactions also demonstrate that the symptoms of GLD may be caused by interference with several pathways. This study contributes to our knowledge of the role of GLRaV-3-encoded proteins in the virus's replication and spread and provides information on grapevine cellular responses to GLRaV-3 infection.

Supervisor: Prof HJ Maree
Co-supervisors: Dr R Bester, Prof JT Burger

MOTLOUNG, Benison (Polymer Science)

Stress- and thermo-responsive hybrid hydrogels based on cellulose nanofibrils and poly(N-isopropylacrylamide)

Hydrogels are soft materials composed of physically or chemically crosslinked polymers that imbibe large amounts of water. They are often applied in healthcare, such as for tissue engineering or drug delivery. Of the different methods to control the properties of hydrogels, this study examines the use of interpenetrating networks and the effect of salts from the Hofmeister series. The combination of cellulose nanofibrils and poly(N-isopropylacrylamide) leads to hydrogels that possess a higher modulus at body temperature compared to room temperature. Furthermore, the hydrogels show reduced viscosity under shear conditions, which allows the gels to be administered as a liquid through injection

Supervisor: Prof B Klumperman
Co-supervisor: Dr R Pfukwa

NGXANGXA, Sithandile (Chemistry)

Gas chromatographic investigation of South African Chenin blanc aroma

A recent addition to premium South African white wines, old-vine Chenin blanc (OVC) wines are produced from certified heritage vineyards older than 35 years. This study involves a detailed investigation of the volatile composition of OVC wines, using state-of-the-art gas chromatographic methods. Complementary sample preparation methods are used in combination with one-dimensional and two-dimensional gas chromatography-mass spectrometry to identify more than 270 volatile constituents, while 58 compounds are quantified. Chemical and descriptive sensory analysis data are investigated through multivariate statistical analysis to study the effects of vineyard age and winemaking practices on OVC sensory profiles.

Supervisor: Prof AJ de Villiers
Co-supervisor: Dr AGJ Tredoux

WILLIAMS, Cody (Biochemistry)

To target or not to target: strategies for the aroma analysis of alcoholic beverages

Products such as wine, gin and beer contain several hundreds of compounds, each with varying concentration levels and unique chemistries. Comprehensive analysis of these alcoholic beverages is challenging, and suitable instrumentation and data-handling strategies are required. This study compares different chemical analysis strategies for aroma, starting with wine and culminating in the application of these strategies to craft gin and beer, while using appropriate statistical tools to evaluate the results. Importantly, the pipeline methodology is established to characterise both qualitative and quantitative information in the analysed products.

Supervisor: Dr A Buica *(external)*
Co-supervisors: Profs M Stander, AV Medvedovici *(external)*

Faculty of Science (Group 1)
Fakulteit Natuurwetenskappe (Groep 1)

OTHER QUALIFICATIONS | ANDER KWALIFIKASIES

Master of Science
Magister in die Natuurwetenskappe

Aaron, Joshua Alexander (Microbiology) *(cum laude)*
Botha, Dewald Du Plessis (Biochemistry) *(cum laude)*
Caillet, Celine (Biochemistry) *(cum laude)*
Campbell, Bianca (Microbiology) *(cum laude)*
Daniels, Miche (Polymer Science)
De Villiers, Dewald (Microbiology)
Grobler, Corlia (Physiological Sciences)
Grobler, Dylan Lawrence (Genetics) *(cum laude)*
Jooste, Sarel Christiaan (Genetics)
Kruger, Arneaux (Physiological Sciences) *(cum laude)*
Markgraaff, Matthew Jamie (Biochemistry) *(cum laude)*
Mfiki, Litha Abigail (Physiological Sciences)
Mwanda, Amanda Asanda (Chemistry)
Nicholas, Dominic Nathaniel (Microbiology)
Ortell, Odile Kathleen (Bioinformatics and Computational Biology)
Reed, Sidney Leigh (Microbiology)
Reid, Jessica Laura (Biochemistry)
Smith, Logan Jason (Physiological Sciences)
Stofberg, Melissa Louise (Biochemistry) *(cum laude)*
Tsipa, Nikiwe Nomhle (Chemistry)
Van Leeuwen, Carmen (Physiological Sciences)
Van Rijn, Raymond Michael (Chemistry) *(cum laude)*
Volkwyn, Alexandra Lemisha (Chemistry) *(cum laude)*

Bachelor of Science Honours
Honneurs-Baccalaureus in die Natuurwetenskappe

Abdullahi Hassan, Faisa (Biochemistry)
Austin, Robyn Hannah (Genetics)
Bekko, Adam (Biochemistry)
Betchu, Sonica (Microbiology) *(cum laude)*
Botha, Joelle Lia (Biochemistry) *(cum laude)*
Brink, Danielle (Physiological Sciences) *(cum laude)*
Clemo, Nicholas John (Genetics)
Copley, Elizabeth Jane (Physiological Sciences) *(cum laude)*
De Wet, Lisa Thea (Chemistry) *(cum laude)*
Dick, Jon-Ross (Microbiology) *(cum laude)*
Dippenaar, Madelein (Genetics) *(cum laude)*
Dotwana, Mzolisi Musa (Physiological Sciences)
Du Plessis, Armand (Microbiology)
Du Preez, Cecile Monique (Physiological Sciences) *(cum laude)*
Du Preez, Christine Adléz (Genetics)
Dunn, Gabrielle (Physiological Sciences)
Engelsman, Craig Edgar David (Genetics) *(cum laude)*
Field, Kayla Louise (Physiological Sciences) *(cum laude)*
Geduld, Cobyn Quinn (Biochemistry)
Geyer, Tamia Amy (Microbiology)
Goodchild, Shannon (Genetics)
Goodwin, Amy Illana Ann (Physiological Sciences) *(cum laude)*
Hellestoe, Chad Broz (Biochemistry)
Hendricks, Candice Simone (Microbiology)
Hewana, Sinelitha Luxolo (Biochemistry)
James, Tatum Olivia (Physiological Sciences)
Jansen Van Rensburg, Mieke (Genetics)
Jooste, Adri (Microbiology)
Le Roux, Elise (Chemistry) *(cum laude)*
Leslie, Dominic James (Chemistry)
Loubser, Carli (Genetics) *(cum laude)*
Mc Arthur, Sarah Susan (Microbiology) *(cum laude)*
Meyer, Kristin Joan (Chemistry) *(cum laude)*
Meyer, Zanfré Ané (Physiological Sciences) *(cum laude)*
Minnie, Deoné Filda (Microbiology) *(cum laude)*
Mosadi, Lesedi (Biochemistry)
Muller, Handré Judene (Physiological Sciences)
Munsamy, Alison Sydelle (Biochemistry) *(cum laude)*
Naidoo, Terri-Lynne (Biochemistry)
Noda, Chwayita (Biochemistry)
Ntlokwana, Sihlahla (Biochemistry)
Ntuli, Mbalenhle (Physiological Sciences)
Palmer, Bianca (Microbiology)
Paulse, Braydon Stean (Chemistry)
Rajaruthnam, Sunthuri (Genetics)
Santos, Sabrina Andrea (Microbiology) *(cum laude)*
Sinha, Aishani (Biochemistry)
Slabber, Johann (Biochemistry)
Steyn, Nina (Microbiology) *(cum laude)*
Steyn, Pia Rebecca (Chemistry)
Strydom, Jana (Physiological Sciences)
Swanepoel, Tineke Beatrix (Physiological Sciences)
Swart, Shané Petra (Physiological Sciences)
Thackwray, Brett (Microbiology) *(cum laude)*
Thompson, Anèl Elaine (Physiological Sciences) *(cum laude)*
Toker, Jayden (Biochemistry)
Tonisi, Sibulele (Biochemistry)
Van Ballegooyen, Patrick Michael (Biochemistry)
Van der Merwe, Breyten (Microbiology) *(cum laude)*
Van der Merwe, Nina Deborah (Biochemistry)
Van der Want, Saskia Noelle (Microbiology) *(cum laude)*
Van Duivenbooden, Ben (Genetics)
Van Greune, Gia Minanto (Microbiology)
Van Niekerk, Jannika (Biochemistry)
Van Rhyn, Lize (Physiological Sciences)
Volminck, Nevin (Biochemistry)
Vrey, Jennifer (Biochemistry)
Waters, Maxine Luise Ann (Physiological Sciences) *(cum laude)*
Williams, Teagan (Chemistry)
Wilson, Julia Alice (Biochemistry) *(cum laude)*
Zuccarini, Juliette Rosabelle (Genetics)

Bachelor of Science Honours in Bioinformatics and Computational Biology
Honneurs-Baccalaureus in die Natuurwetenskappe in Bioinformatika en Berekeningsbiologie

Berry, Lara Denise (Bioinformatics and Computational Biology) *(cum laude)*
Kula, Sibabalwe Ishmael (Bioinformatics and Computational Biology) *(cum laude)*
Otto, Nicola Miriam Elizabeth (Bioinformatics and Computational Biology) *(cum laude)*
Stapar, Sara (Bioinformatics and Computational Biology) *(cum laude)*
Torppa, Johannes Elias (Bioinformatics and Computational Biology) *(cum laude)*
Wannenburg, Willem (Bioinformatics and Computational Biology) *(cum laude)*
West, Alistar Curtley (Bioinformatics and Computational Biology)

Bachelor of Science
Baccalaureus in die Natuurwetenskappe

Adams, Nina
Amm, Justin Richard
Anderson, Jenna
Aucamp, Doné *(cum laude)*
Badenhorst, Tayla
Bake, Zeta Terri
Barnard, Paxton Deseree
Barrow, Kristen-Leigh
Basson, Jana Daleen
Baum, Jemima Safia
Beaton, Camryn Rose
Beaumont, Dominic James Stewart
Bestbier, Heinrich
Bester, Kirsten
Bhugeloo, Shrea
Blumeris, Isabella Cate
Bossenger, Caitlin Eileen
Braasch, Ané Dorothy
Bracken, Georgina Emma
Brand, Emma Esther *(cum laude)*
Brink, Justine
Brown, Sabrina Rae
Bruiners, Nazalea Sumaya
Bunch, Cameron James
Burger, Andries Louis
Calitz, Abigail Kayla *(cum laude)*
Campbell, Courtney
Campbell, Kyle
Ceasar, Camerin Gracelyn
Chidavaenzi, Michelle Ruvimbo
Clarke, James Dominic
Cloete, Beatri
Cloete, Danet
Coetzee, Lenique Garthlin
Coetzee, Ronelle
Collins, Daniella Paige
Cooper, Jemma Leigh
Creamer, Gary Neil
Croucamp, Rochelle
Daniels, Mogamat Zubayr
Davies, Kirstin Aerin Thelma *(cum laude)*
De Waard, Jessica Sarah *(cum laude)*
Disetlhe, Refilwe Caroline
Dixon, Jessie Leigh
Dreyer, Danel *(cum laude)*
Du Toit, Brian *(cum laude)*
Du Toit, Marc Fabian Luke
Els, Wilmé
Endenburg, Jessica Ann
Esterhuyse, Nicolene
Forsyth, Caileigh Rose
Fortgens, Jocelyn Andrea
Fouché, Elsebé Catherina
Fourie, Jenaye Gailene
Frans, Lauren Sophia
Fulop, Kiara
Gerber, Mi-Jeanne
Gilardi, Laura
Govender, Shivadhna Dipika
Grobler, Trudie
Groenewald, Anabel
Harding, Amy Jade
Harper, Dale
Henn, Rayne Grayson
Henning, Chrisilie
Hepplestone, Katherine Valerie
Heyneke, Angelique
Hill, Rachel Sharon
Hinde, Tarryn
Hwang, Shinyoung
Jacobs, Maria Elizabeth *(cum laude)*
Jansen, Alecia Angelique
Johnston, Jordan Conrad
Jooste-Coetsee, Nicholas Luke
Josephus, Amy
Joubert, Tacha-Marie
Klaasen, Kaylin Channing
Koopman, Wihlem-Heine
Kriek, Gertruida Titia
Kritzinger, Celine
Kruger, Chanté
Kruger, Christine
Kruger, Emma Maria
Kutzer, Keanu Paques
Lamprecht, Annerie
Lamprecht, Yentl *(cum laude)*
Langa, Simiso Sanele
Langmead, Bowen Guy
Leech, Timothy Stuart
Lekhu, Tsholofelo
Lewis, Julianne Rachel
Lewis, Olivia Catherine
Lichtenberg, Maria Elizabeth *(cum laude)*
Liebenberg, Minette *(cum laude)*
Lindt, Chadwin
Loots, Willmi
Loubser, Hyran Graeme Grant
Louw, Ané *(cum laude)*
Louw, Katinka Maria
Louw, Mia
Makova, Ruvarashe

Makwara, Yvonne Mutsawashe
Malan, Albertus Gerhardus
Malherbe, Lisa
Malyon, Caitlynn
Marongwe, Kurauwone Panashe
Mataboge, Amogelang
Matlolane, Ofentse Kamohelo
McNaughton, Jenna Claire
Meissenheimer, Robin Will
Melling, Hannah
Mfeketo, Nkosinathi
Mistry, Sneha
Mohlabe, Kabelo Mathinyane
Molatlhoe, Boitshepo
Momberg, Kathleen Antonia
Moolman, Robyn Danielle
Moore, Grace Helen
Morrison, Kerryn Leigh
Mulryan, Elizabeth Daisy *(cum laude)*
Munnik, Nicole Ines
Murphy, Charles
Mvusi, Siphokazi Lisa
Myburg, Jeanrie
Naidoo, Darian *(cum laude)*
Naidoo, Kiara *(cum laude)*
Nair, Nikita Rolene
Naudé, Daniël Pieter
Neale, Ruth Michelle
Nel, Nevada
Nel, Vivienne
Nell, Kayla
Nelson, Anrich
Nhlapo, Katleho
November, Toni Angelique
Ntshinka, Neli Felicia
Ntsokolo, Asemi
Pachinger, Michael Julian
Papangeli, Michaela
Papenfus, Jacobus Cornelis
Paterson, Jordin
Paulse, Damian Arthur
Pengelly, Tenielle Catherine Donna
Pollicutte, Trisha
Potgieter, Chelsea Sean
Pretorius, Elsa
Pretorius, Emma René
Prinsloo, Izabel
Quattrocecere, Cole Leigh Marcel
Ramini, Jade
Rassool, Rejane
Rauch, Helen Marie
Roberts, Reece Bryn
Rossouw, Anouk Danielle
Salie, Layla
Sars, Leah Sidney
Serfontein, Ilani
Shazi, Bethaba
Short, Caitlin Grace
Sieberhagen, Juliana
Sirin, Cleo Ann
Skrobo, Matsidiso Brenda
Smit, Anna Magdalena
Smit, Johanna Magdalena
Smit, Marenique
Smith, Carmen
Smith, Shanéa
Snyman, Gerhardus Joseph
Snyman, Liné
Spengler, Nicole
Stabrey, Kirsten *(cum laude)*
Stephenson, Amy Lauren
Steward, Kristina Erin
Steyn, Emma Margaret
Stoll, Dylan Anton
Strydom, Le Roux *(cum laude)*
Swanepoel, Duané Nicole
Swanepoel, Elisbe
Taruvinga, Rumbidzai Joanna
Taylor, Summer Eve
Ten Krooden, Zoe
Thomas, Hadley Ryno
Traut, Jana
Trollip, Sophia Faye
Tucker, Thairone Kidger
Twala, Musawenkosi Ntando
Twana, Lwethu
Vakalisa, Lona
Van Breda, Danielle
Van den Berg, Karen
Van der Merwe, Kay-Leigh
Van der Vent, Melissa
Van der Vyver, Hybre
Van der Walt, Simone Rozelle
Van der Watt, Isabel Mari
Van der Westhuizen, Shané
Van der Westhuizen, Tiaan Lucas
Van Nelson, Toni
Van Niekerk, Jolene
Van Rensburg, Jessica
Van Schalkwyk, Chantel
Van Strijp, Jessica *(cum laude)*
Van Wyk, Megan Chery-Lee
Van Zijl, Pamela Mary
Van Zyl, Chloë Caroline
Van Zyl, Christian Leon
Van Zyl, Zandri
Van Zyl, Zani
Venter, Cara *(cum laude)*
Vermaak, Lauren
Von Wielligh, Inge
Vosloo, Amber
Vuma, Mbalenhle
Wahab, Humaaira
Wakens, Anastacia Maria
Webb, Megan
Wessels, Hélène Leonora *(cum laude)*
Wiese, Daniel Jurgens
Willemse, Theo
Williams, Matthew Peter
Witbooi, Liam
Zondi, Khesande
Zwane, Nothando Baliwe

RESPONSIBILITY CENTRE: REGISTRAR
VERANTWOORDELIKHEIDSSENTRUM: REGISTRATEUR

Jan du Toit

Having joined Stellenbosch University (SU) in 1990, Jan du Toit was instrumental in the implementation of the University's then Student Information System (SIS), which served SU well for over three decades. He also championed the first online application and registration functionalities in South African higher education and led the establishment of the University's first Contact and Client Services. When the SIS reached the end of its useful life, he again played a pivotal role in acquiring a new student administration solution to future-proof SU's systems and processes. His performance record and institutional knowledge have made Jan a true asset to the University.

Nadat Jan du Toit hom in 1990 by die Universiteit Stellenbosch (US) aangesluit het, het hy 'n belangrike bydrae gelewer tot die inwerkingstelling van die Universiteit se destydse Studente-inligtingstelsel (SIS), wat vir meer as 30 jaar in die US se behoeftes voorsien het. Hy het ook die eerste aanlyn aansoek- en registrasieprosesse in Suid-Afrikaanse hoër onderwys aangevoor en die vestiging van die Universiteit se eerste Kontak- en Klientedienssentrum gelei. Toe die SIS die einde van sy gebruiksduur bereik, was Jan wéér 'n kernrolspeler in die verkryging van 'n nuwe studente-administrasiestelsel om die US se stelsels en prosesse toekomsgereed te maak. Sy prestasiegeskiedenis en institusionele kennis maak hom 'n ware aanwins vir die Universiteit.

RESPONSIBILITY CENTRE: STRATEGY, GLOBAL AND CORPORATE AFFAIRS

VERANTWOORDELIKHEIDSSENTRUM: STRATEGIE, GLOBALE EN KORPORATIEWE SAKE

Loumarie Kistner

Loumarie Kistner of the Division of Strategic Initiatives and Information Governance has made remarkable contributions to the development of data analytics as a strategic tool at Stellenbosch University (SU), particularly the design, implementation and refinement of SUN-i, SU's business intelligence system, which enables data-driven decision-making on a range of issues. Using her skills in analysis, technical specifications, innovation, testing, training, processes, reporting and communication, she continuously develops solutions to institutional challenges and plays a key part in enhancing SU's performance and reputation. Her involvement in the implementation of SUNStudent, the University's new student administration system, also helped ensure business continuity.

Loumarie Kistner van die Afdeling Strategiese Inisiatiewe en Inligtingsoorsigbestuur het merkwaardige bydraes gelewer tot die ontwikkeling van dataontleding as 'n strategiese instrument aan die Universiteit Stellenbosch (US), veral die ontwerp, toepassing en afronding van SUN-i, die US se stelsel vir bedryfsintelligensie, wat datagedrewe besluitneming oor verskeie kwessies moontlik maak. Danksy haar vaardigheid in ontleding, tegniese spesifikasies, innovasie, toetsing, opleiding, prosesse, verslagdoening en kommunikasie, ontwikkel sy deurgaans oplossings vir institusionele uitdagings en vervul sy 'n kernrol om die US se prestasie en reputasie te versterk. Voorts het haar betrokkenheid by die inwerkingstelling van SUNStudent, die Universiteit se nuwe studente-administrasiestelsel, bedryfsvoortsetting help verseker.

RESPONSIBILITY CENTRE: CHIEF OPERATING OFFICER
VERANTWOORDELIKHEIDSSENTRUM: BEDRYFSHOOF

Nicolette van den Eijkel

Nicolette van den Eijkel, Stellenbosch University's chief director of Facilities Management, joined the University in 2015. Together with her team, she manages 466 buildings and 787 000 m2 of bulk infrastructure across SU's five campuses, and has done so with distinction through a pandemic, major fires, a drought and protests. The largest project of her tenure has been the multiyear Campus Renewal Project. By the end of 2022, 54 projects on this massive R6,2 billion programme had been completed. These include the state-of-the-art billion-rand Biomedical Research Institute at Tygerberg, which Nicolette and her team delivered on time and within budget and has exceeded SU's expectations.

Nicolette van den Eijkel, hoofdirekteur van Fasiliteitsbestuur aan die Universiteit Stellenbosch, het haar in 2015 by die Universiteit aangesluit. Saam met haar span bestuur sy 466 geboue en 787 000 m2 se massa-infrastruktuur op die US se vyf kampusse. Dít doen sy met onderskeiding ondanks 'n pandemie, groot brande, 'n droogte en protesaksies. Die grootste projek van haar ampstermyn is die Kampusvernuwingsprojek, wat oor etlike jare strek. Teen die einde van 2022 was 54 projekte van hierdie enorme program van R6,2 miljard voltooi. Dít sluit in die hipermoderne Biomediese Navorsingsinstituut van R1 miljard by Tygerberg. Dié fasiliteit het die US se verwagtinge oortref, en Nicolette en haar span het dit betyds en binne begroting afgehandel.

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Faculty of Science (Group 2)

13 December 2023 | 17:00

Fakulteit Natuurwetenskappe (Groep 2)

13 Desember 2023 | 17:00

Programme

Please stand	1. Entrance of academic procession into the hall.
Please stand	2. Playing of the National Anthem.
Please sit	3. Congregation formally constituted by the Chancellor.
	4. Welcome by the Chancellor.
	5. Presentation of candidate for the honorary doctorate and conferment of the degree by the Chancellor.
	6. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Chancellor.
	7. Introduction of the candidate for the Chancellor's Award and presentation of the award by the Chancellor.
	8. Closing by the Chancellor.
Please stand	9. The academic procession leaves the stage.

Program

Staan asseblief	1. Akademiese prosessie kom die saal binne.
Staan asseblief	2. Speel van die Nasionale Lied.
Sit asseblief	3. Formele konstituering deur die Kanselier.
	4. Verwelkoming deur die Kanselier.
	5. Voorstelling van die eredoktorandus en toekenning van die eredoktorsgraad deur die Kanselier.
	6. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Kanselier.
	7. Voorstelling van kandidaat vir die Kanselierstoekenning en oorhandiging van die toekenning deur die Kanselier.
	8. Sluiting deur die Kanselier.
Staan asseblief	9. Akademiese prosessie verlaat die verhoog.

FACULTY OF SCIENCE
FAKULTEIT NATUURWETENSKAPPE

The degree Doctor of Science (DSc), *honoris causa*, to
Die graad Doktor in die Natuurwetenskappe (DSc), *honoris causa*, aan

Robert Martin Adam

his outstanding lifelong contributions to science and technology in South Africa and to the disciplines of Astronomy and Physics, his commitment to the advancement of scientific knowledge through his academic pursuits, and his unwavering dedication to societal advancement.

Dr Robert Martin Adam has been a key player in the development of science and technology in South Africa.

For close to three decades, he served in various roles in the sector, influencing the development of policies that guided the South African government's vision for science and technology. His positions included deputy director general of Science and Technology (1996), director general of Arts, Culture, Science and Technology (1999), chief executive of the South African Nuclear Energy Corporation (2006), director of the Square Kilometre Array (SKA) South Africa (2016), and director of the South African Radio Astronomy Observatory (2022).

His strategic acumen contributed to South Africa's successful bid to host the SKA Observatory, and he was instrumental in the completion of the MeerKAT radio telescope, a world-class scientific tool.

Adam, who now works as a consultant in strategy and technology, has also made a significant impact in the field of astrophysics as a member of the team who made groundbreaking observations of the galactic centre. His remarkable contributions to science and technology have earned him recognition from prestigious national and international organisations.

sy voortreflike lewenslange bydrae tot die wetenskap en tegnologie in Suid-Afrika en tot die vakrigtings Astronomie en Fisika, sy toegewyde bevordering van wetenskaplike kennis deur sy akademiese werk, en sy onwrikbare verbintenis tot die vooruitgang van die samelewing.

Dr Robert Martin Adam is 'n kernrolspeler in die ontwikkeling van die wetenskap en tegnologie in Suid-Afrika.

Hy het vir bykans drie dekades in 'n aantal hoedanighede in die sektor gedien en beleide help ontwikkel wat die Suid-Afrikaanse regering se visie vir wetenskap en tegnologie rig. Hy was onder meer adjunkdirekteur-generaal van Wetenskap en Tegnologie (1996), direkteur-generaal van Kuns, Kultuur, Wetenskap en Tegnologie (1999), uitvoerende hoof van die Suid-Afrikaanse Kernenergiekorporasie (2006), direkteur van die SKA (Square Kilometre Array) Suid-Afrika (2016), en direkteur van die Suid-Afrikaanse Radioastronomiesterrewag (2022).

Sy strategiese vernuf het bygedra tot Suid-Afrika se suksesvolle bod vir die SKA-sterrewag. Boonop het hy meegewerk aan die voltooiing van die MeerKAT-radioteleskoop, 'n wetenskaplike instrument van wêreldgehalte.

Adam, wat deesdae as 'n strategie- en tegnologiekonsultant werk, het ook 'n aansienlike impak op die terrein van astrofisika gehad as lid van die span wat baanbrekerwaarnemings van die Melkwegkern gemaak het. Prestigeryke nasionale en internasionale organisasies het hom al vir sy merkwaardige bydrae tot die wetenskap en tegnologie vereer.

Faculty of Science (Group 2)
Fakulteit Natuurwetenskappe (Groep 2)

DOCTORAL QUALIFICATIONS | DOKTORALE KWALIFIKASIES

DOCTOR OF PHILOSOPHY
DOKTOR IN DIE WYSBEGEERTE

ALEXANDER, Byron (Physics)

Quantum information processing with multipartite entangled quantum systems

Future technologies based on quantum information processing, such as super-secure quantum communication, highly precise quantum sensing and ultra-fast quantum computing, all require the generation of multipartite entangled quantum states. In this context, this study develops a novel method for generating projected squeezed states that not only reduces generation time, but also reveals the utility of these states in precise quantum sensing. Furthermore, the practicality of weighted graph states in quantum sensing is investigated, using their unique geometrical patterns. The results show that the states provide a simplified and efficient approach for practical quantum information processing.

Supervisor: Prof MS Tame
Co-supervisor: Prof SK Ozdemir *(external)*

KAVHU, Blessing (GeoInformatics)

Investigating the impact and drivers of land use/cover change on surface water resources in the Okavango basin, using remote sensing and modelling

This study integrates remote sensing and geospatial modelling to determine the drivers and impact of land use and land cover (LULC) change on natural resources in the Okavango basin. A scoping review reveals few previous studies in African transboundary basins, and none in sub-Saharan Africa. Integrating spectral indices and climate-based regionalisation enhances the accuracy of multitemporal LULC mapping. LULC change in the Okavango is found to be predominantly driven by anthropogenic activities. Novel approaches using machine learning and the circuit theory model reliably predict future LULC change. Climate variability affects water availability and distribution in the Okavango basin more than anthropogenic activities.

Supervisor: Dr E Mashimbye
Co-supervisor: Dr L Luvuno *(external)*

KOHLAKALA, Aviwe (Applied Mathematics)

Dental implant recognition

This study proposes a novel algorithm for generating artificial training samples from triangulated 3D surface models in the context of dental implant recognition. The proposed algorithm is based on the calculation of 2D parallel projections from several different angles of 3D volumetric representations of computer-aided design surface models. A fully convolutional network (FCN) is subsequently trained on the simulated X-ray images for the purpose of automatically identifying the connection type associated with a specific dental implant in an actual X-ray image. Segmented and normalised dental implants are presented to the trained FCN for classification purposes.

Supervisor: Dr J Coetzer

MAGANGANA, Tandokazi Pamela (Botany)

Phytochemical properties, biological activity and processing of pomegranate fruit peel (*Punica granatum L.*): bio-prospects for value addition

This study develops a novel protocol for the preservation of specialised metabolites in *Punica granatum L.* (pomegranate) peel. As a postharvest process, a hot-water blanching pretreatment is highly effective for generating extracts from commercial cultivars that have superior phytochemical and pharmacological properties. Blanching, combined with ultrasound-assisted extraction, produces extracts of superior quality compared to supercritical extractions, irrespective of fruit harvest maturity or cultivar. This approach can easily be adopted for industrial application. It offers a simple, inexpensive solution that could be implemented in a peel waste management regime to generate peel-based products that are eco-friendly with high bioactivity.

Supervisor: Prof NP Makunga
Co-supervisors: Profs O Fawole, L Opara

MARÉ, Esmari (Applied Mathematics)

Mathematical pore-scale modelling of kinematic and geometric properties of fibrous porous media

In this study, existing geometric pore-scale models are adapted to predict the permeability and specific surface area of fibre-type and foamlike porous media. The effect of solid lumps at nodes is accounted for, as are compression, variable solid sizes and the Klinkenberg effect. The proposed models' range of applicability extends beyond that described in the literature. The predictive equations are expressed in terms of measurable macroscopic parameters, rendering them suitable for use in experimental and numerical studies for further validation and analysis. The mathematical modelling analysis presented contributes to applications involving filtration and heat transfer processes.

Supervisor: Prof S Fidder-Woudberg

MOSTERT, Werner (Computer Science)

Landscape aware algorithm selection for feature selection

Feature selection, a pre-processing technique in machine learning, removes redundant and irrelevant features and enhances predictive model performance. Although numerous algorithms exist, a limited theoretical understanding of their behaviour often results in adopting a trial-and-error process for algorithm selection. This study investigates the relationship between feature-selection problem characteristics and algorithm performance. Using fitness landscape analysis, the structure of the feature-selection fitness landscape is explored. The proposal of an unbiased 'baseline fitness improvement' metric facilitates comparative analysis across datasets, where performance complementarity among algorithms is shown. The research culminates in the development of a landscape-aware algorithm selector.

Supervisor: Prof AP Engelbrecht
Co-supervisor: Prof KM Malan *(external)*

NCUBE, Thinabakho Ruth Lerato (GeoInformatics)

Modelling the clusters and boundaries of sub-Saharan plant assemblages in future environments

This study identifies sub-Saharan Africa plant community patterns, including bioregions and associated ecotones, and investigates their drivers. Local assemblage richness, compositional turnover and the fractal dimensions of ecotones are analysed through a suite of techniques, including a generalised linear model, a generalised additive model and a multi-site generalised dissimilarity model of zeta diversity. Rainfall and environmental heterogeneity are identified as playing dominant roles. Bioregions and ecotones are further projected under shared socioeconomic pathways for 2050 and 2070 to highlight the potential shifts in community composition, with novel bioregions emerging at the cost of shrinkage in some current bioregions.

Supervisor: Prof H de Klerk
Co-supervisors: Profs C Hui, J Lovett *(external)*

OFOSU MENSAH, Samuel (Applied Mathematics)

Analysing retinal fundus images with deep learning models

This study investigates the use of deep neural networks for the analysis of retinal fundus images. Firstly, networks are tailored to classify the severity of diabetic retinopathy. In order to explain model predictions, gradient-weighted class activation mapping is incorporated to produce localisation maps over input images. Secondly, multi-task learning is employed to predict certain cardiovascular risk factors from retinal fundus images, using the classification network as a backbone. Thirdly, a hybrid model that fuses convolutions and transformer encoders is proposed, and is found to perform competitively compared to existing models from the literature.

Supervisor: Dr B Bah
Co-supervisor: Prof WH Brink

SKHOSANA, Felix Vusumuzi (Botany)

Patterns and mechanisms of woody plant encroachment and impacts on ecosystem processes and services

In this study, woody plant encroachment (WPE) impacts are investigated through literature synthesis and mechanistic experiments. A synthetic review of African versus North American evidence shows that African WPE is driven more by fine-leaved nitrogen fixers. WPE generally reduces rangeland production, but pressure to diversify livestock is higher in Africa. WPE reduces rainfall by ±50% through canopy interception and evaporation, with a ±13-fold increase in woody cover. Rainfall partitioning depends on leaf and canopy structure and rainfall characteristics, with rainfall intercepted inversely related to rainfall event size and intensity. Therefore, WPE would have its most significant adverse interception effects in arid African savannas.

Supervisor: Prof GF Midgley
Co-supervisors: Drs M Mateyisi *(external)*, N Stevens *(external)*

Faculty of Science (Group 2)
Fakulteit Natuurwetenskappe (Groep 2)

OTHER QUALIFICATIONS | ANDER KWALIFIKASIES

Master of Science
Magister in die Natuurwetenskappe

Andrianarisoa, Tolotranirina Gabriel (Mathematics) *(cum laude)*
Askew, Stephanie Marie (Geography and Environmental Studies B) *(cum laude)*
Beyers, Louise (Machine Learning and Artificial Intelligence) *(cum laude)*
Daniel, Jemma Louise (Machine Learning and Artificial Intelligence) *(cum laude)*
De Villiers, David Francois (Machine Learning and Artificial Intelligence) *(cum laude)*
Du Toit, Simon (Machine Learning and Artificial Intelligence) *(cum laude)*
Durr, Cassandra (Machine Learning and Artificial Intelligence) *(cum laude)*
Elgebali, Fatema (Machine Learning and Artificial Intelligence)
Fouché, Eugène Egbert (Physics) *(cum laude)*
Fulton, Kristen (Plant Biotechnology)
Halgryn, Leon Philippus (Machine Learning and Artificial Intelligence) *(cum laude)*
Henriques, Miguel Stephen Joel (Plant Biotechnology)
Horoto, Langa Samuel (Physics) *(cum laude)*
Indongo, Naftali Ndeapo (Machine Learning and Artificial Intelligence)
Janna, Jamila (Zoology)
Lombard, Belinda (Applied Mathematics) *(cum laude)*
Meyer, Lucas (Machine Learning and Artificial Intelligence)
Mildenhall, Ryan (Machine Learning and Artificial Intelligence)
Mokhoro, Moabi Gabriel (Machine Learning and Artificial Intelligence)
Myburgh, Angus Macgregor (Zoology) *(cum laude)*
Nana Yiepnou, Hortence Phalonne (Machine Learning and Artificial Intelligence)
Ndilenga, Natanael Shuudifonya (Botany) *(cum laude)*
Nel, Emma Alida (Applied Mathematics) *(cum laude)*
Schwegler, David Alexander (Plant Biotechnology)
Tshioloili, Tshinanne Edward (Machine Learning and Artificial Intelligence)
Vandayar, Mahima (Geography and Environmental Studies B) *(cum laude)*
Wacira, Joseph Muthui (Applied Mathematics)
Xonti, Alukhanyo (Plant Biotechnology)

Master of Science in Earth Sciences
Magister in die Natuurwetenskappe in Aardwetenskappe

Bester, Andeon (Earth Sciences) *(cum laude)*
Davies, Emma Jane (Earth Sciences) *(cum laude)*
La Cock, Rutger Alexander (Earth Sciences) *(cum laude)*
Van der Merwe, Michelle (Earth Sciences) *(cum laude)*
Walsh, Jared Tanner (Earth Sciences)

Bachelor of Science Honours
Honneurs-Baccalaureus in die Natuurwetenskappe

Allan, Kai (Earth Sciences)
Archer, Douglas (Biodiversity and Ecology)
Asefi, Jordaan Babur Burna (Earth Sciences)
Austin, Natalie Lara (Physics)
Banda, Kondwani (Plant Biotechnology)
Bentley, Scott Grant (Biodiversity and Ecology)
Braithwaite, Isabella Mary-Anne (Earth Sciences)
Brown, Mia Jo (Applied Mathematics) *(cum laude)*
Buchanan, Kayla (Earth Sciences) *(cum laude)*
Burger, Gerrard Alwyn (Computer Science)
Busser, Gerrit (Computer Science)
Butler, Marc Andrew (Biodiversity and Ecology)
Campbell, Tarryn (Applied Mathematics) *(cum laude)*
Chetty, Jarooshan (Applied Mathematics) *(cum laude)*
Cilliers, Nicola (Applied Mathematics) *(cum laude)*
Cloete, Daniël Willem Hendrik (Applied Mathematics) *(cum laude)*
Coetzee, Arnold Dirk (Computer Science)
Coetzer, Llelani Mischke (Earth Sciences) *(cum laude)*
Coles, Jordan Tyler (Plant Biotechnology)
Combrink, Charlotte (Biodiversity and Ecology) *(cum laude)*
Dalton, Courtnay (Computer Science)
Dalton, Gareth Kent (Computer Science) *(cum laude)*
Davids, Keegan (Physics)
Du Toit, Tracey Joanne (Biodiversity and Ecology)
Edward, Alice (Earth Sciences)
Ehrenreich, Jesse (Computer Science)
Engelbrecht, Tiaan Johan (Biodiversity and Ecology)
Farge, Dylan Richard (Computer Science) *(cum laude)*
Faurie, Niekus Janu (Earth Sciences)
Ferreira, Emile Dos Santos (Computer Science) *(cum laude)*
Fick, Corlia (Plant Biotechnology)
Finder, Samuel (Computer Science)
Flanagan, Catherine (Biodiversity and Ecology)
Forbes, Zain (GeoInformatics)
Fourie, Juan Adriaan (Computer Science)
Fraser, Jamie Leigh (Computer Science)
Garrett, Christopher Haddon (Biodiversity and Ecology)
Gibaud, Tegan (Biodiversity and Ecology)
Gildenhuys, Christiaan Petrus (Biodiversity and Ecology)
Giliomee, Neil Philip (Computer Science)
Glasby, Tallulah Rose (Biodiversity and Ecology) *(cum laude)*
Good, Cameron Michael (Biodiversity and Ecology)
Govender, Suveena (Biodiversity and Ecology)
Grobbelaar, Nelia (Computer Science) *(cum laude)*
Hay, Johan Francois (Computer Science)
Henn, Lisa (Biodiversity and Ecology)

Hindley, Amber Jade (Earth Sciences)
Hoppe, Andrea (Biodiversity and Ecology)
Hugo, Garrick (Biodiversity and Ecology)
Human, Nadia (Biodiversity and Ecology)
Hund, James (Computer Science)
Isaacs, Ieslaah (Biodiversity and Ecology)
Izaaks, Danielle Nicola (Biodiversity and Ecology)
Jeftha, Gretchen Leila (Plant Biotechnology)
Jonker, Stephanus (Physics)
Joubert, Jean-Pierre Roland (Biodiversity and Ecology)
Kamkweshe, Nyasha Sharon (Plant Biotechnology)
Kerby, Gabriella Georgina (Biodiversity and Ecology)
Kilgour, Kyle (Plant Biotechnology) *(cum laude)*
Kimathi, Joseph (Computer Science)
Koegelenberg, Hendrik Jurgen (GeoInformatics) *(cum laude)*
Kruger, Alexander Ockert (Computer Science)
Kruger, Tjaart (Mathematics) *(cum laude)*
Kurrimboccus, Mohammud Ansar (Computer Science)
Langeveldt, Chris Hough (Computer Science)
Le Roux, Pierre (Computer Science)
Le Roux, Stehan Henry (Earth Sciences)
Lee, Jin Ree (Computer Science) *(cum laude)*
Lemme, Bokamoso Keamogetse (Biodiversity and Ecology)
Liang, Ting-I (Computer Science)
Lourens, Adele (Applied Mathematics) *(cum laude)*
Louw, Gemma Jessica (Biodiversity and Ecology)
Mabelane, Nkgero Lincoln (Earth Sciences)
Mackridge, Ruan (Computer Science)
Malan, Tessa Elizabeth (Computer Science) *(cum laude)*
Martin, River Haelan Joshua (Computer Science)
Masemola, Balushi Percy (Earth Sciences)
Mcgaffin, Gordon (Computer Science)
Mengel, Kayleigh Jean (Biodiversity and Ecology)
Mertens, Pieter (Computer Science) *(cum laude)*
Mugabe, Victor Farai (Earth Sciences)
Muller, Jessica Rae (GeoInformatics) *(cum laude)*
Muzembe, Sheanesu Ingrid (Computer Science) *(cum laude)*
Mweli, Simanga (Earth Sciences)
Nel, Pieter Besselsen (Plant Biotechnology)
Ngcobo, Siboniso Philasande (GeoInformatics) *(cum laude)*
Ngubane, Simphiwe Maqhawe Gift (GeoInformatics)
Ngubo, Nokwazi Zanele (GeoInformatics)
Nieto Lawrence, Julian Alexander (Biodiversity and Ecology) *(cum laude)*
Nortje, Michaela Skye (GeoInformatics) *(cum laude)*
O'Kennedy, Morgan Lynn (Computer Science) *(cum laude)*
October, Andrea Leigh (Plant Biotechnology)
Oosthuizen, Meghan (Plant Biotechnology)
Ortell, Lara Robin (Applied Mathematics)
Phokungoana, Hlompho (Physics)
Pillay, Krianka (Earth Sciences)
Pillay, Rios Rae (Plant Biotechnology) *(cum laude)*
Pretorius, Christian Harm (Computer Science)
Pretorius, Jacob Johannes (Earth Sciences)
Pretorius, Simoné (Computer Science) *(cum laude)*
Raffaelli, Sean Kieran (Operations Research)
Ramsay, Erin Kate (Biodiversity and Ecology)
Raubenheimer, Hendrik (Computer Science)
Rheeder, Christelle Magdeleen (Biodiversity and Ecology)
Rhodes, Justin Ernest (Computer Science)
Rocher, Pierre Milan (Computer Science)
Rogers, Benjamin Dogherty (Computer Science)
Sander, Nicholas Jan (Mathematics) *(cum laude)*
Schapers, Nicholas Trevithick (Earth Sciences)
Schonken, René (Plant Biotechnology)
Searle, Andrew (Biodiversity and Ecology)
Slabbert, Christiaan (Computer Science)
Smit, Jeanne Katherina (Biodiversity and Ecology)
Steyn, Gary Jared (Computer Science)
Steyn, Hana Zoe (Plant Biotechnology)
Steynberg, Hanre (Plant Biotechnology)
Thekiso, Ikaneng (Applied Mathematics)
Thorburn, Jody (Biodiversity and Ecology) *(cum laude)*
Timpson, Daniel (Earth Sciences) *(cum laude)*
Van den Heever, Jeanelize Helene (Biodiversity and Ecology)
Van der Linden, Wicus Jan (Computer Science) *(cum laude)*
Van der Meulen, Khia Rose (Biodiversity and Ecology)
Van der Spuy, Alexandra (Computer Science) *(cum laude)*
Van der Walt, Emil (Computer Science) *(cum laude)*
Van Greunen, Amor (Plant Biotechnology) *(cum laude)*
Van Huyssteen, Stephanus Rutger (GeoInformatics)
Van Loggenberg, Luan (Physics)
Van Rensburg, Christiaan Martinus (Biodiversity and Ecology)
Van Rensburg, Kayla (Computer Science) *(cum laude)*
Van Staden, Hermanus Johannes (Earth Sciences)
Van Velden, Rocco Joubert (Applied Mathematics) *(cum laude)*
Van Wyk, Armand Chris (Computer Science)
Van Wyk, Sean Andrew (Computer Science) *(cum laude)*
Van Wyngaard, Adriaan (Computer Science)
Van Zyl, Daniel Jack (Computer Science) *(cum laude)*
Van Zyl, Gibor (Computer Science) *(cum laude)*
Venter, Kira Elisabeth (Earth Sciences) *(cum laude)*
Vivier, Rocco (Computer Science)
Wessels, Bernardus Adriaan (Mathematics) *(cum laude)*
Wheeler, Mary Marjorie (Biodiversity and Ecology) *(cum laude)*
Wiese, Benjamin (Biodiversity and Ecology)

Bachelor of Science
Baccalaureus in die Natuurwetenskappe

Alberts, Mieke
Barnard, Timo Johan
Barrett, Joseph Colin *(cum laude)*
Barry, Siobhan Kara
Battell, Cole
Beeslaar, George
Bense, Jordan Mathew
Bester, Johannes Jacobus Nicolaas
Bester, Marelie *(cum laude)*
Booysen, Luke Louw
Brincker, Neil Andrew
Budke, Aaron David
Burger, Ian Helgard
Buÿs, Jacques
Cele, Nokwazi Siphokazi
Corbellari, Tristan Luca
Crous, Adrian Theo Francois
Cutler, Lian
Day, William Richard Osborne

De Jongh, Jana *(cum laude)*
De Wet, Carron Charl
Dekker, Louise Eleanor
Douw, Buntu
Durrer, Anthony
Duyvestyn, Courtney Susan
Edwards, Lourdes Bernadette
Emslie, Joshua Dillan
Engelbrecht, Gideon Frederik
Evans, Grant
Fivaz, Derryk Winston
Fleidl, Leandru Roland
Fourie, Natasha
Geldenhuys, Beate
Groenewald, Calvin
Hasseriis, Skye
Hesselink, Matthew Pienaar
Hodgson, Richard John
Honey, Jenna Ann
Huysamen, Ancois
Jones, Lauren Courtney
Jooste, Chante
Karadzandima, Anesu Vimbai Patricia
Kassier, Anneke Aletta
Kesiamang, Pako
Kinghorn, David Ian
Kleyn, Danielle Madeleine *(cum laude)*
Labberte, Mitchell Ben
Le Roux, Iszabella *(cum laude)*
Loots, Anika
Louw, Stefan
Lovric, Gabriella Kristina *(cum laude)*
Mafu, Athini
Mahlare, Karabo
Mairs, Bianca Ann
Malloch, Kimberly Ann *(cum laude)*
Martin, Ethan John
Mashavhele, Phindulo Precious
Matsika, Tinotenda
Matsila, Lufuno Aubrey
Meyer, Willem
Moselane, Tieho Albin
Moshi, Mankaleme
Ncube, Mhleli Nkosilomusa
Nel, Zeané
Ngobeni, Akin
Ngqokoma, Sinoxolo
Ntambi, Tina
Oberholzer, Jana
Odendaal, Jada
Olivier, Jessica Esther
Passanah, Luke Dumayne Lemaistre
Peens, Tyla Jody *(cum laude)*
Pretorius, Adelay *(cum laude)*
Pretorius, Bianca
Reed, Tayla Erin
Reid, Tristan Samuel
Rode, Heinrich Vosloo
Roux, Anna
Shearer, Ryan
Shepard, Jordan Luke
Sherriff, Celia Ida
Smit, Nina *(cum laude)*
Smith, Laurie Grace
Smith, Lee Vernon
Sotshozi, Yamkela
Stevens, Lara
Stewart, David Corbin
Stewart, William Carlyle *(cum laude)*
Stoffels, Amy Hillary
Stuurman, Vernon Malcolm
Swarts, Immanuel Benjamin
Terreblanche, Hendrik Josephus
Thornton, Skyla
Trezise, Thomas Henry Oldman
Van der Merwe, Merisa
Van der Merwe, Nicholas
Van der Vyver, Cara
Van Eeden, Dietrich
Van Riet, Thomas
Van Staden, Wynand
Venter, Charné
Venter, Joshua James
Walker, Rowan Lucienne
Walsh, Aron Tyler
Wild, Andreas Gerhard *(cum laude)*
Wilken, Dillan
Woithe, Nina
Wood, Sarah Bianca
Yengana, Linamandla

Bachelor of Science in Computer Science
Baccalaureus in die Natuurwetenskappe in Rekenaarwetenskap

Abrahams, Jayden
Anderson, Kian Luke
Armstrong, James Gregory
Barkley, Liam *(cum laude)*
Becker, Jacques
Begemann, Cornelius Wilbert
Beukes, Jano Coenraad
Bosma, Bernard Paul
Botes, Benjamin William
Breedt, Janco Titan
Correia, Zachary Owen Lund
De Jager, Louis
De Villiers, Bianka
Delport, Kayla
Dreyer, Emile
Elves, Clinton
Engelbrecht, Lehan Joos
Espach, Jack Eben
Giles, Lauryn Clare
Green, Keenan Michael
Groenewald, Zane
Harrison, Peter-Jack *(cum laude)*
Heitor, Jade Toni Pressly
Jeffery, Cindi-Ann *(cum laude)*
Jeram, Darshan
Keys, Matthew David *(cum laude)*
Labuschagne, Phillip Anton
Laing, Wian
Le Roux, Iain Mckinnell *(cum laude)*

Letshu, William Eteta
Lutz, Joseph
Mahlangu, Ben Sibusiso
Marais, Jacques
Mathoho, Konanani
Mavuso, Siphesihle
Meyer, Iliya Irvine
Mogni Cardoso, Carlina
Mudima, Takunda Charles
Narayan, Kaveer
Olivier, Kadhan Reza
Paulse, Juan Marc
Payne, Luke John
Pheiffer, Joshua
Phillips, Matthew James
Rahman, Raeesa
Rishworth, Jethro Finn
Russouw, Stefan Visser
Sass, Markus Friedel
Solomon, Clayton *(cum laude)*
Stander, Liam
Stoffberg, Mia *(cum laude)*
Swanepoel, Christo *(cum laude)*
Sykes, Michael David
Truter, Cassidy
Van der Merwe, Albertus Petrus
Van Staden, Marthinus Johannes
Veitch, Paula Leigh
Venter, Louis Johannes
Vermeulen, Zander *(cum laude)*
Viviers, Gerhardus Johannes *(cum laude)*
Walters, Aldo Nicolaas
Weight, Jean *(cum laude)*
Weiner, Gabriel
Westley, Alexander Jonathan
Wickham, Cade
Zishiri, Nyasha

RESPONSIBILITY CENTRE: RECTOR AND VICE-CHANCELLOR
VERANTWOORDELIKHEIDSSENTRUM: REKTOR EN VISEKANSELIER

Sonia Schoeman

As a dedicated development officer in the Development and Alumni Relations Division at Stellenbosch University (SU) since 2010, Sonia Schoeman is an expert fundraiser in the corporate social investment arena. Over the past 13 years, she has helped attract R826 million in philanthropic funds to the University from this area of corporate South Africa alone. In addition, this SU 1982 BA honours alumna is passionate about the Stellenbosch community, about social justice and sustainable impact, about youth development and the environment, and about knowledge as a catalyst for change. This is evident from her engagement with the funders and changemakers who help move both the University and South Africa forward.

As 'n toegewyde ontwikkelingsbeampte in die Universiteit Stellenbosch (US) se Afdeling Ontwikkeling en Alumni-betrekkinge sedert 2010, is Sonia Schoeman 'n kundige fondswerwer op die gebied van korporatiewe maatskaplike belegging. Slegs uit hierdie domein van korporatiewe Suid-Afrika het sy oor die afgelope 13 jaar altesaam R826 miljoen in filantropiese finansiering vir die Universiteit help bekom. Boonop is dié 1982 BA honneurs US-alumna passievol oor die Stellenbosch-gemeenskap, oor sosiale geregtigheid en volhoubare impak, oor jeugontwikkeling en die omgewing, en oor kennis as 'n katalisator vir verandering. Dit blyk duidelik uit haar skakeling met die finansiers en veranderingsagente wat sowel die Universiteit as Suid-Afrika help vorentoe beweeg.

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National anthem

Nasionale volkslied

Nkosi Sikelel' iAfrika
Maluphakanyisw' uphondo lwayo,
Yizwa imithandazo yethu,
Nkosi sikelela, thina lusapho lwayo

Morena boloka setjhaba sa heso,
O fedise dintwa le matshwenyeho,
O se boloke, O se boloke setjhaba sa heso,
Setjhaba sa South Afrika - South Afrika.

Uit die blou van onse hemel,
Uit die diepte van ons see,
Oor ons ewige gebergtes,
Waar die kranse antwoord gee,

Sounds the call to come together,
And united we shall stand,
Let us live and strive for freedom,
In South Africa our land.

Engage with us • Raak betrokke

Stellenbosch University Alumni

Graduating from university is a big step in your life's journey. Once you have obtained your degree, you form part of the alumni community and Stellenbosch University remains your intellectual home. The Alumni Relations Office believes the success of a university depends greatly on the participation of its alumni, therefore we strive to keep you connected to your alma mater long after the euphoria of obtaining your qualification/s has died down.

Om van 'n universiteit te gradueer is 'n groot stap in enigeen se lewensreis. Sodra jy jou graad verwerf het, vorm jy deel van die alumni-gemeenskap van jou universiteit en bly die Universiteit Stellenbosch jou intellektuele tuiste. Die Alumni-kantoor streef daarna om alumni met hul almal mater in verbinding te hou nog lank nadat die euforie van graadvang verby is.

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Victoriastraat, Admin B, 3de Vloer
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